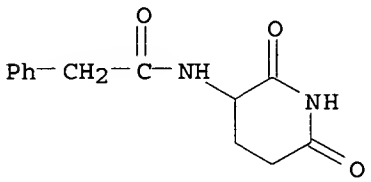
```
=> fil reg; s 77658-84-5
FILE 'REGISTRY' ENTERED AT 11:14:42 ON 07 JAN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    5 JAN 2005  HIGHEST RN 808732-83-4
DICTIONARY FILE UPDATES:   5 JAN 2005  HIGHEST RN 808732-83-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html


L4            1 77658-84-5
                (77658-84-5/RN)

=> d ide

L4   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   77658-84-5 REGISTRY
CN   Benzeneacetamide, N-(2,6-dioxo-3-piperidinyl)- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   3-(Phenylacetylamino)piperidine-2,6-dione
FS   3D CONCORD
DR   158930-26-8
MF   C13 H14 N2 O3
LC   STN Files:   ADISINSIGHT, ANABSTR, BIOSIS, CA, CAPLUS, IPA, TOXCENTER,
       USPATFULL
DT.CA  CAplus document type:  Dissertation; Journal; Patent
RL.P   Roles from patents:  ANST (Analytical study); BIOL (Biological study);
       PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RLD.P  Roles for non-specific derivatives from patents:  BIOL (Biological
       study)
RL.NP  Roles from non-patents:  ANST (Analytical study); BIOL (Biological
       study); PREP (Preparation); PROC (Process); PRP (Properties); USES
       (Uses)
RLD.NP Roles for non-specific derivatives from non-patents:  BIOL (Biological
       study); USES (Uses)
```



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

25 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
25 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> => fil capl; d que l21; d que l41; d que l43; d que l42
FILE 'CAPLUS' ENTERED AT 12:26:46 ON 07 JAN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 7 Jan 2005 VOL 142 ISS 3
FILE LAST UPDATED: 6 Jan 2005 (20050106/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

L4 1 SEA FILE=REGISTRY ABB=ON 77658-84-5
L7 1 SEA FILE=REGISTRY ABB=ON RIBOFLAVIN/CN
L8 2 SEA FILE=REGISTRY ABB=ON ARGININE/CN
L9 2 SEA FILE=REGISTRY ABB=ON ORNITHINE/CN
L10 1 SEA FILE=REGISTRY ABB=ON CITRULLINE/CN
L11 2 SEA FILE=REGISTRY ABB=ON ALANINE/CN
L12 1 SEA FILE=REGISTRY ABB=ON GLYCINE/CN
L13 2 SEA FILE=REGISTRY ABB=ON SERINE/CN
L14 1 SEA FILE=REGISTRY ABB=ON TAURINE/CN
L15 2 SEA FILE=REGISTRY ABB=ON THREONINE/CN
L16 2 SEA FILE=REGISTRY ABB=ON VALINE/CN
L17 17690 SEA FILE=CAPLUS ABB=ON L7
L18 44310 SEA FILE=CAPLUS ABB=ON (L8 OR L9 OR L10)
L19 109418 SEA FILE=CAPLUS ABB=ON (L11 OR L12 OR L13 OR L14 OR L15 OR L16)
L20 25 SEA FILE=CAPLUS ABB=ON L4
L21 1 SEA FILE=CAPLUS ABB=ON L20 AND (L17 OR L18 OR L19)

L4 1 SEA FILE=REGISTRY ABB=ON 77658-84-5
L20 25 SEA FILE=CAPLUS ABB=ON L4
L23 165871 SEA FILE=CAPLUS ABB=ON DRUG DELIVERY SYSTEMS+OLD/CT
L41 2 SEA FILE=CAPLUS ABB=ON L20 AND L23

L4 1 SEA FILE=REGISTRY ABB=ON 77658-84-5
L20 25 SEA FILE=CAPLUS ABB=ON L4

L43 9 SEA FILE=CAPLUS ABB=ON L20 (L) (PAC OR DMA OR THU OR PKT OR BAC)/RL

Roles PAC - pharmacologic activity
DMA - drug mechanism of action
THU - therapeutic use
PKT - pharmacokinetics
BAC - biological activity

L4 1 SEA FILE=REGISTRY ABB=ON 77658-84-5
L20 25 SEA FILE=CAPLUS ABB=ON L4
L42 21 SEA FILE=CAPLUS ABB=ON L20 AND PHARMAC?/SC,SX

=> s l21 or l41 or l43 or l42

L127 22 L21 OR L41 OR L43 OR L42

=> fil uspatf; d que l50; d que l55

FILE 'USPATFULL' ENTERED AT 12:26:47 ON 07 JAN 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 6 Jan 2005 (20050106/PD)
FILE LAST UPDATED: 6 Jan 2005 (20050106/ED)
HIGHEST GRANTED PATENT NUMBER: US6839903
HIGHEST APPLICATION PUBLICATION NUMBER: US2005005336
CA INDEXING IS CURRENT THROUGH 6 Jan 2005 (20050106/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 6 Jan 2005 (20050106/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2004
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2004

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

L4 1 SEA FILE=REGISTRY ABB=ON 77658-84-5
L7 1 SEA FILE=REGISTRY ABB=ON RIBOFLAVIN/CN
L8 2 SEA FILE=REGISTRY ABB=ON ARGININE/CN
L9 2 SEA FILE=REGISTRY ABB=ON ORNITHINE/CN
L10 1 SEA FILE=REGISTRY ABB=ON CITRULLINE/CN
L11 2 SEA FILE=REGISTRY ABB=ON ALANINE/CN
L12 1 SEA FILE=REGISTRY ABB=ON GLYCINE/CN
L13 2 SEA FILE=REGISTRY ABB=ON SERINE/CN
L14 1 SEA FILE=REGISTRY ABB=ON TAURINE/CN
L15 2 SEA FILE=REGISTRY ABB=ON THREONINE/CN

```
L16             2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L46            20 SEA FILE=USPATFULL ABB=ON  L4
L47           994 SEA FILE=USPATFULL ABB=ON  L7
L48          2497 SEA FILE=USPATFULL ABB=ON  (L8 OR L9 OR L10)
L49          6430 SEA FILE=USPATFULL ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR
                  L16)
L50             1 SEA FILE=USPATFULL ABB=ON  L46 AND (L47 OR L48 OR L49)


L4              1 SEA FILE=REGISTRY ABB=ON  77658-84-5
L46            20 SEA FILE=USPATFULL ABB=ON  L4
L52           538 SEA FILE=USPATFULL ABB=ON  ((SIDE OR ADVERSE OR TOXIC)(2A)EFFEC
                  T#)/IT
L53          4703 SEA FILE=USPATFULL ABB=ON  (TOXICITY OR CYTOTOXICITY)/IT
L55             6 SEA FILE=USPATFULL ABB=ON  L46 AND (L52 OR L53)


=> s l50 or l55

L128            6 L50 OR L55

=> fil biosis; d que l65; d que l68; d que l71

FILE 'BIOSIS' ENTERED AT 12:26:48 ON 07 JAN 2005
Copyright (c) 2005 The Thomson Corporation.

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 5 January 2005 (20050105/ED)

FILE RELOADED: 19 October 2003.


L4              1 SEA FILE=REGISTRY ABB=ON  77658-84-5
L7              1 SEA FILE=REGISTRY ABB=ON  RIBOFLAVIN/CN
L8              2 SEA FILE=REGISTRY ABB=ON  ARGININE/CN
L9              2 SEA FILE=REGISTRY ABB=ON  ORNITHINE/CN
L10             1 SEA FILE=REGISTRY ABB=ON  CITRULLINE/CN
L11             2 SEA FILE=REGISTRY ABB=ON  ALANINE/CN
L12             1 SEA FILE=REGISTRY ABB=ON  GLYCINE/CN
L13             2 SEA FILE=REGISTRY ABB=ON  SERINE/CN
L14             1 SEA FILE=REGISTRY ABB=ON  TAURINE/CN
L15             2 SEA FILE=REGISTRY ABB=ON  THREONINE/CN
L16             2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L58            19 SEA FILE=BIOSIS ABB=ON  L4
L59          6228 SEA FILE=BIOSIS ABB=ON  L7
L60          6928 SEA FILE=BIOSIS ABB=ON  RIBOFLAVIN OR VITAMIN(W)(B2 OR B 2)
L61         24253 SEA FILE=BIOSIS ABB=ON  (L8 OR L9 OR L10)
L62         89621 SEA FILE=BIOSIS ABB=ON  ARGININE OR ORNITHINE OR CITRULLINE
L63         52629 SEA FILE=BIOSIS ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR
                  L16)
L64        199616 SEA FILE=BIOSIS ABB=ON  ALANINE OR GLYCINE OR SERINE OR
                  TAURINE OR THREONINE OR VALINE
L65             0 SEA FILE=BIOSIS ABB=ON  L58 AND (L59 OR L60 OR L61 OR L62 OR
                  L63 OR L64)


L4              1 SEA FILE=REGISTRY ABB=ON  77658-84-5
```

FILE 'TOXCENTER' ENTERED AT 12:26:51 ON 07 JAN 2005
COPYRIGHT (C) 2005 ACS

FILE COVERS 1907 TO 4 Jan 2005 (20050104/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

TOXCENTER has been enhanced with new files segments and search fields.
See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary. See http://www.nlm.nih.gov/mesh/ and http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a description of changes.

```
L4             1 SEA FILE=REGISTRY ABB=ON  77658-84-5
L7             1 SEA FILE=REGISTRY ABB=ON  RIBOFLAVIN/CN
L8             2 SEA FILE=REGISTRY ABB=ON  ARGININE/CN
L9             2 SEA FILE=REGISTRY ABB=ON  ORNITHINE/CN
L10            1 SEA FILE=REGISTRY ABB=ON  CITRULLINE/CN
L11            2 SEA FILE=REGISTRY ABB=ON  ALANINE/CN
L12            1 SEA FILE=REGISTRY ABB=ON  GLYCINE/CN
L13            2 SEA FILE=REGISTRY ABB=ON  SERINE/CN
L14            1 SEA FILE=REGISTRY ABB=ON  TAURINE/CN
L15            2 SEA FILE=REGISTRY ABB=ON  THREONINE/CN
L16            2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L96           25 SEA FILE=TOXCENTER ABB=ON  L4
L97         3283 SEA FILE=TOXCENTER ABB=ON  L7
L98         4052 SEA FILE=TOXCENTER ABB=ON  RIBOFLAVIN OR VITAMIN(W)(B2 OR B 2)

L99        14429 SEA FILE=TOXCENTER ABB=ON  (L8 OR L9 OR L10)
L100       44499 SEA FILE=TOXCENTER ABB=ON  ARGININE OR ORNITHINE OR CITRULLINE

L101       31577 SEA FILE=TOXCENTER ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR
                 L16)
L102      108239 SEA FILE=TOXCENTER ABB=ON  ALANINE OR GLYCINE OR SERINE OR
                 TAURINE OR THREONINE OR VALINE
L106           1 SEA FILE=TOXCENTER ABB=ON  L96 AND (L97 OR L98 OR L99 OR L100
                 OR L101 OR L102)



L4             1 SEA FILE=REGISTRY ABB=ON  77658-84-5
L96           25 SEA FILE=TOXCENTER ABB=ON  L4
L104      790545 SEA FILE=TOXCENTER ABB=ON  ((SIDE OR ADVERSE OR TOXIC)(2A)EFFEC
                 T#)
L105      148989 SEA FILE=TOXCENTER ABB=ON  CHEMOTHERAP?
L107     2313689 SEA FILE=TOXCENTER ABB=ON  TOXIC? OR CYTOTOXIC?
L108          10 SEA FILE=TOXCENTER ABB=ON  L96 AND ((L104 OR L105) OR L107)


=> s l106 or l108

L130          10 L106 OR L108

=> dup rem l127, l128, l92, l129, l130
 FILE 'CAPLUS' ENTERED AT 12:27:28 ON 07 JAN 2005
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
```

```
L58          19 SEA FILE=BIOSIS ABB=ON  L4
L66      361737 SEA FILE=BIOSIS ABB=ON  (TOXICITY OR CYTOTOXICITY)
L67      179201 SEA FILE=BIOSIS ABB=ON  ((SIDE OR ADVERSE OR TOXIC)(2A)EFFECT#)

L68            3 SEA FILE=BIOSIS ABB=ON  L58 AND (L66 OR L67)



L4             1 SEA FILE=REGISTRY ABB=ON  77658-84-5
L58           19 SEA FILE=BIOSIS ABB=ON  L4
L70      1857167 SEA FILE=BIOSIS ABB=ON  DRUG
L71           14 SEA FILE=BIOSIS ABB=ON  L58 AND L70


=> s l68 or l71

L129          14 L68 OR L71

=> fil ipa; d que l88; d que l92

FILE 'IPA' ENTERED AT 12:26:50 ON 07 JAN 2005
COPYRIGHT (C) 2005 American Society of Hospital Pharmacists (ASHP)

FILE COVERS 1970 TO 4 JAN 2005 (20050104/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.


L4             1 SEA FILE=REGISTRY ABB=ON  77658-84-5
L7             1 SEA FILE=REGISTRY ABB=ON  RIBOFLAVIN/CN
L8             2 SEA FILE=REGISTRY ABB=ON  ARGININE/CN
L9             2 SEA FILE=REGISTRY ABB=ON  ORNITHINE/CN
L10            1 SEA FILE=REGISTRY ABB=ON  CITRULLINE/CN
L11            2 SEA FILE=REGISTRY ABB=ON  ALANINE/CN
L12            1 SEA FILE=REGISTRY ABB=ON  GLYCINE/CN
L13            2 SEA FILE=REGISTRY ABB=ON  SERINE/CN
L14            1 SEA FILE=REGISTRY ABB=ON  TAURINE/CN
L15            2 SEA FILE=REGISTRY ABB=ON  THREONINE/CN
L16            2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L81           16 SEA FILE=IPA ABB=ON  L4
L82          223 SEA FILE=IPA ABB=ON  L7
L83          291 SEA FILE=IPA ABB=ON  RIBOFLAVIN OR VITAMIN(W)(B2 OR B 2)
L84          149 SEA FILE=IPA ABB=ON  (L8 OR L9 OR L10)
L85          588 SEA FILE=IPA ABB=ON  ARGININE OR ORNITHINE OR CITRULLINE
L86          212 SEA FILE=IPA ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR L16)
L87         1126 SEA FILE=IPA ABB=ON  ALANINE OR GLYCINE OR SERINE OR TAURINE
                 OR THREONINE OR VALINE
L88            0 SEA FILE=IPA ABB=ON  L81 AND (L82 OR L83 OR L84 OR L85 OR L86
                 OR L87)



L4             1 SEA FILE=REGISTRY ABB=ON  77658-84-5
L81           16 SEA FILE=IPA ABB=ON  L4
L89        79096 SEA FILE=IPA ABB=ON  (TOXICITY OR CYTOTOXICITY)
L90        30280 SEA FILE=IPA ABB=ON  ((SIDE OR ADVERSE OR TOXIC)(2A)EFFECT#)
L91         5764 SEA FILE=IPA ABB=ON  CHEMOTHERAP?
L92            6 SEA FILE=IPA ABB=ON  L81 AND (L89 OR L90 OR L91)


=> fil toxcenter; d que l106; d que l108
```

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE 'USPATFULL' ENTERED AT 12:27:28 ON 07 JAN 2005

FILE 'IPA' ENTERED AT 12:27:28 ON 07 JAN 2005

FILE 'BIOSIS' ENTERED AT 12:27:28 ON 07 JAN 2005

FILE 'TOXCENTER' ENTERED AT 12:27:28 ON 07 JAN 2005

PROCESSING COMPLETED FOR L127
PROCESSING COMPLETED FOR L128
PROCESSING COMPLETED FOR L92
PROCESSING COMPLETED FOR L129
PROCESSING COMPLETED FOR L130
L131 44 DUP REM L127 L128 L92 L129 L130 (14 DUPLICATES REMOVED)
ANSWERS '1-22' FROM FILE CAPLUS
ANSWERS '23-27' FROM FILE USPATFULL
ANSWERS '28-32' FROM FILE IPA
ANSWERS '33-43' FROM FILE BIOSIS
ANSWER '44' FROM FILE TOXCENTER

=> d ibib ed ab hitind 1-22; d ibib ab hitrn 23-27; d ial 28-44

L131 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2003:434352 CAPLUS
DOCUMENT NUMBER: 138:406977
TITLE: Formulation of amino acids and riboflavin useful to reduce toxic effects of cytotoxic chemotherapy
INVENTOR(S): Burzynski, Stanislaw R.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

Applicants data priority

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003045372	A1	20030605	WO 2002-US37354	20021121
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003105104	A1	20030605	US 2001-995010	20011127
EP 1450781	A1	20040901	EP 2002-789801	20021121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002014430	A	20041103	BR 2002-14430	20021121
PRIORITY APPLN. INFO.:			US 2001-995010 A	20011127
			WO 2002-US37354 W	20021121

ED Entered STN: 06 Jun 2003
AB Pharmaceutical compns. effective in alleviating or reducing the effects of fatigue and weakness associated with cancer and cytotoxic cancer chemotherapy are disclosed. The pharmaceutical compns. of the present invention comprise riboflavin, effectors of the urea cycle in free form or pharmacol. acceptable salts thereof, and amino acids selected from the groups of essential and non-essential amino acids, in free form or pharmaceutically acceptable salts thereof, suitably combined with appropriate carriers, diluents, or excipients. Also disclosed are methods of alleviating or reducing the effects of fatigue and weakness associated with cancer and cytotoxic cancer chemotherapy by administration of pharmaceutical compns. of the present invention.
IC ICM A61K031-195
ICS A61K031-198; A61K031-525; A61P041-00; A23L001-305
CC 63-6 (**Pharmaceuticals**)
Section cross-reference(s): **1**
IT **Drug delivery systems**
(carriers; formulation of amino acids and riboflavin useful to reduce toxic effects of cytotoxic chemotherapy)
IT **Drug delivery systems**
(injections, i.v.; formulation of amino acids and riboflavin useful to reduce toxic effects of cytotoxic chemotherapy)
IT **Drug delivery systems**
(parenterals; formulation of amino acids and riboflavin useful to reduce toxic effects of cytotoxic chemotherapy)
IT **56-40-6**, Glycine, biological studies **56-41-7**, Alanine, biological studies **56-45-1**, Serine, biological studies **70-26-8**, Ornithine **72-18-4**, Valine, biological studies **72-19-5**, Threonine, biological studies **74-79-3**, Arginine, biological studies **83-88-5**, Riboflavin, biological studies **107-35-7**, Taurine **372-75-8**, Citrulline **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione
RL: **PAC (Pharmacological activity)**; PEP (Physical, engineering or chemical process); PYP (Physical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(formulation of amino acids and riboflavin useful to reduce toxic effects of cytotoxic chemotherapy)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L131 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 1998:31104 CAPLUS
DOCUMENT NUMBER: 128:111158
TITLE: Design of drugs involving receptor-ligand-DNA interactions
INVENTOR(S): Hendry, Lawrence B.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 158,689.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5705335	A	19980106	US 1994-369779	19941128
US 5888738	A	19990330	US 1997-864669	19970528
US 5888741	A	19990330	US 1997-935219	19970822
US 6306595	B1	20011023	US 1999-239491	19990128
US 2002064790	A1	20020530	US 2001-941230	20010828
PRIORITY APPLN. INFO.:			US 1993-158689 A2	19931126

US 1994-369779 A1 19941128
US 1997-864669 A1 19970528
US 1999-239491 A1 19990128

ED Entered STN: 19 Jan 1998
AB It has been discovered that the degree of hormonal activity of candidate ligands correlates better with the degree of fit into DNA than with the strength of receptor binding, and that the receptors in the steroid/thyroid hormone/vitamin A and D family alter the physiochem. properties of DNA and in concert with other transcription factors facilitate insertion of the ligand into DNA. As a result, the magnitude of the response is a function of the structure of the ligand as it relates to insertion and fit into the DNA and the specificity of the response is a function of the stereochem. of the receptor through binding to both the ligand and to the DNA. Based on these discoveries, a computer-based method is described herein for identifying drugs having increased activity as compared with the natural ligand for receptors such as the estrogenic receptors.
IC ICM C12Q001-68
ICS G06F017-50; A61K031-56
NCL 435006000
CC 2-2 (Mammalian Hormones)
IT 50-28-2, Estradiol, biological studies 57-83-0, Progesterone, biological studies 77-06-5, Gibberellic acid 128-20-1 516-54-1, 3α-Hydroxy-5α-pregnan-20-one 521-18-6, 5α-Dihydrotestosterone 571-22-2, 5β-Dihydrotestosterone 5864-38-0 **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione 95258-51-8
RL: **BAC (Biological activity or effector, except adverse)**; BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(design of drugs involving receptor-ligand-DNA interactions)
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L131 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 1994:499064 CAPLUS
DOCUMENT NUMBER: 121:99064
TITLE: Antiestrogenic piperidinediones designed prospectively using computer graphics and energy calculations of DNA-ligand complexes
AUTHOR(S): Hendry, Lawrence B.; Chu, Chung K.; Copland, John A.; Mahesh, Virendra B.
CORPORATE SOURCE: Dep. Physiol. Endocrinol., Med. Coll. Georgia, Augusta, GA, 30912, USA
SOURCE: Journal of Steroid Biochemistry and Molecular Biology (1994), 48(5-6), 495-505
CODEN: JSBBEZ; ISSN: 0960-0760
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 03 Sep 1994
AB Drug design technol. based upon DNA stereochem. and now supplemented by computer modeling was used to design a novel compound to inhibit estrogen-induced tumor cell growth. A known compound 3-phenylacetylamino-2,6-piperidinedione (PP) was accommodated in partially unwound DNA in a manner consistent with criteria for antiestrogens. Examination of the PP-DNA complex revealed that substitution of a hydroxyl group at the para position (p-OH-PP) would provide a stereospecific hydrogen bond and a substantial increase in fit as assessed by energy calcns. The antiestrogen tamoxifen could also be accommodated within the site; analogous substitution of a hydroxyl at the 4-position resulted in a better fitting mol. 4-Hydroxytamoxifen is a more potent antiestrogen than tamoxifen. Synthesis and subsequent evaluation of p-OH-PP as an inhibitor of estrogen stimulated MCF-7 (E3) human breast cancer cell growth

demonstrated that p-OH-PP was more active than both PP and its hydrolysis product phenylacetylglutamine. As predicted, the order of fit into DNA correlated with the relative ability to inhibit estrogen-induced growth of tumor cells suggesting that the evolving drug design technol. will be valuable in developing new drugs for breast cancer.

CC 1-3 (**Pharmacology**)
Section cross-reference(s): 2

IT 50-28-2, Estradiol, biological studies 10540-29-1, Tamoxifen
28047-15-6, Phenylacetylglutamine 68047-06-3, 4-Hydroxytamoxifen
77658-84-5, 3-Phenylacetylamino-2,6-piperidinedione
RL: BIOL (Biological study)
(DNA binding by, computer modeling of, in antiestrogenic neoplasm inhibitor development)

L131 ANSWER 4 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 1994:23166 CAPLUS
DOCUMENT NUMBER: 120:23166
TITLE: Inhibition of estrogen stimulated mitogenesis by 3-phenylacetylamino-2,6-piperidinedione and its para-hydroxy analog
AUTHOR(S): Copland, John A.; Hendry, Lawrence B.; Chu, Chung K.; Wood, Joseph C.; Wrenn, Robert W.; Pantazis, Cooley G.; Mahesh, Virendra B.
CORPORATE SOURCE: Dep. Physiol. Endocrinol., Med. Coll. Georgia, Augusta, GA, 30912-3000, USA
SOURCE: Journal of Steroid Biochemistry and Molecular Biology (1993), 46(4), 451-62
CODEN: JSBBEZ; ISSN: 0960-0760
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 22 Jan 1994
AB 3-Phenylacetylamino-2,6-piperidinedione (A10) inhibited estradiol-stimulated cell growth in the MCF-7 (E3) human breast tumor cell line in vivo and in vitro. While high concns. of A10 were needed to inhibit cell proliferation (IC50 = 3 + 10-3M in vitro), the compound demonstrated little toxicity. The effect appeared specific since a hydrolysis product of A10, phenylacetylglutamine, demonstrated no growth inhibitory activity at similar concns. in MCF-7 (E3) cells in vitro. A computer designed analog, p-hydroxy A10, was more potent than A10 in inhibiting activity in MCF-7 (E3) cells in vitro. The IC50 for p-hydroxy A10 was 7 + 10-6 M which was comparable to that of the antiestrogen, tamoxifen (IC50 1 + 10-7 M). All three compds. caused a decline in estrogen receptor levels in a dose-dependent fashion. A10 also inhibited estradiol induction of progesterone receptors. Examination of protein kinase activity following an acute exposure to a 10-11 M growth stimulatory dose of estradiol revealed a 168% increase in protein kinase activity over that of untreated control cells. A10 in a dose-responsive fashion inhibited the estradiol-stimulated increase in protein kinase activity. The protein kinase activity was also inhibited by p-hydroxy A10. These activities of A10 and p-hydroxy A10 coupled with the low toxicity and novelty of the basic A10 structure provide an exciting possibility of developing a new class of clin. useful antineoplastic drugs with minimal side effects.
CC 1-6 (**Pharmacology**)
Section cross-reference(s): 2
IT **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione 138592-72-0
RL: BIOL (Biological study)
(breast cancer cells of human inhibition by)

L131 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 10
ACCESSION NUMBER: 1984:416929 CAPLUS
DOCUMENT NUMBER: 101:16929
TITLE: Animal toxicology studies on oral formulation of

antineoplaston A10
AUTHOR(S): Burzynski, S. R.; Mohabbat, M. O.; Burzynski, B.
CORPORATE SOURCE: Burzynski Res. Inst., Stafford, TX, 77477, USA
SOURCE: Drugs under Experimental and Clinical Research (1984), 10(2), 113-18
CODEN: DECRDP; ISSN: 0378-6501
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 21 Jul 1984
AB Antineoplaston A10 (I) [**77658-84-5**] tested in tissue culture of human carcinoma of the breast line MDA-MB-231, produced a cytostatic effect at 2 mg/mL. LD50 in mice of the Na salt of Antineoplaston A10 given in the form of i.p. injection was determined as 10.33 g/kg. In chronic toxicity studies, Antineoplaston A10 was given to the mice in the form of 1.0%, 1.5%, and 2.0% food mixture daily for 30 days and in the form of 1.0% food mixture daily for 365 days. The dosage levels were approx. 1.0 g/kg/day of Antineoplaston A10 for 1.0% food mixture, 1.25 g/kg/day for 1.5%, and 1.5 g/kg/day for 2.0%. A total of 160 mice were used in the expts. The animals were sacrificed on days 30, 60, 90, 180, and 365 and underwent complete phys., gross pathol., and microscopic examination The studies did not reveal any toxic effect associated with daily chronic oral administration of Antineoplaston A10 to mice.
CC 1-6 (**Pharmacology**)
IT **77658-84-5**
RL: PRP (Properties)
(toxicity of, as neoplasm inhibitor, in human cells and laboratory animals)

L131 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1036404 CAPLUS
DOCUMENT NUMBER: 142:11305
TITLE: Toothpaste containing anticancer agents and calcium salts
INVENTOR(S): Burzynski, Stanislaw R.; Gruszecki, Wojciech
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 8 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004241107	A1	20041202	US 2003-446536	20030528
PRIORITY APPLN. INFO.:			US 2003-446536	20030528

ED Entered STN: 03 Dec 2004
AB A novel dentifrice composition is provided for prevention or treatment of carcinoma of the oral cavity, caries and periodontal diseases of the oral cavity. The dentifrice composition contains a partially water-soluble calcium salt, a medicinal composition useful in the treatment of human neoplastic disease, and a hydrophilic or hydrophobic liquid vehicle. A preferred dentifrice composition is a toothpaste comprising gypsum, 3-N-phenylacetylamino-2,6-piperidinedione, gypsum, paraffin oil and a mixture of natural flavoring oils. The components of the dentifrice composition act advantageously to allow the composition to remove plaque, tartar, and oral disease-causing bacteria.
IC ICM A61K007-16
NCL 424049000
CC 62-7 (Essential Oils and Cosmetics)
Section cross-reference(s): **63**
IT **77658-84-5**
RL: COS (Cosmetic use); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(toothpaste containing anticancer agents and calcium salts)

L131 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:84607 CAPLUS
DOCUMENT NUMBER: 132:132326
TITLE: Antitumor regimen for administration of phenylacetylglutamine, phenylacetylisoglutamine, and/or phenylacetate
INVENTOR(S): Burzynski, Stanislaw R.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000004894	A2	20000203	WO 1999-US15017	19990702
WO 2000004894	A3	20000427		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6258849	B1	20010710	US 1998-121567	19980723
MX 9900255	A	20000731	MX 1999-255	19990104
CA 2336945	AA	20000203	CA 1999-2336945	19990702
AU 9948542	A1	20000214	AU 1999-48542	19990702
AU 759278	B2	20030410		
BR 9912356	A	20010417	BR 1999-12356	19990702
EP 1098643	A2	20010516	EP 1999-932179	19990702
EP 1098643	B1	20040107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002521329	T2	20020716	JP 2000-560887	19990702
AT 257378	E	20040115	AT 1999-932179	19990702
NZ 509244	A	20040227	NZ 1999-509244	19990702
ES 2214866	T3	20040916	ES 1999-932179	19990702
US 2001044466	A1	20011122	US 2001-863035	20010522

PRIORITY APPLN. INFO.: US 1998-121567 A 19980723
WO 1999-US15017 W 19990702

OTHER SOURCE(S): MARPAT 132:132326
ED Entered STN: 04 Feb 2000
AB A method of treating neoplastic disease, including cancer, comprises administering a pharmaceutical composition comprising a highly concentrated aqueous solution of phenylacetylglutamine and phenylacetylisoglutamine in a 4:1 ratio, at an infusion rate of from 100 mL/h to 400 mL/h. Also, the method comprises a highly concentrated aqueous solution of phenylacetate and (phenylacetylglutamine or phenylacetylisoglutamine) in a 4:1 ratio, at an infusion rate of from 100 mL/h to 400 mL/h.
IC ICM A61K031-00
CC 1-6 (**Pharmacology**)
Section cross-reference(s): **63**
IT 114-70-5, Sodium phenylacetate 1821-12-1, Benzenebutanoic acid 28047-15-6, Phenylacetylglutamine **77658-84-5**,

3-Phenylacetylamino-2,6-piperidinedione 104771-88-2
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antitumor regimen for administration of phenylacetylglutamine, phenylacetylisoglutamine, and/or phenylacetate)

L131 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:714113 CAPLUS
DOCUMENT NUMBER: 132:54936
TITLE: Enantioselective separation of several piperidine-2,6-dione drugs on Chirose C-1 chiral stationary phase
AUTHOR(S): Aboul-Enein, Hassan Y.; Al-Duraibi, Ibrahim A.
CORPORATE SOURCE: Bioanalytical and Drug Development Laboratory Biological and Medical Research Department (MBC 03), King Faisal Specialist Hospital and Research Centre, Riyadh, 11211, Saudi Arabia
SOURCE: Separation Science and Technology (1999), 34(15), 2973-2979
CODEN: SSTEDS; ISSN: 0149-6395
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 09 Nov 1999
AB A newly developed Chirose C-1 chiral stationary phase, a highly chiral polymer, was used for direct and isocratic enantiomeric separation of 12 piperidine-2,6-dione compds. under normal phase conditions. Baseline separation was achieved for 8 compds., 3 compds. were partially separated, while 1 compound did not resolve.
CC 64-3 (**Pharmaceutical** Analysis)
IT 50-35-1, Thalidomide 841-67-8 2614-06-4 17575-58-5 17575-59-6
38473-28-8 55511-44-9 57288-03-6 **77658-84-5** 83155-00-4
91531-30-5 108816-40-6 108816-41-7 108929-54-0 119095-49-7
121742-46-9 121742-47-0 123979-23-7 123979-24-8 124095-07-4
124095-08-5 124095-09-6 124095-10-9 137623-89-3 137623-91-7
151410-41-2 162662-87-5 252943-15-0 252943-17-2 252943-18-3
RL: ANT (Analyte); ANST (Analytical study)
(enantioselective separation of piperidinedione drugs on Chirose C-1 chiral stationary phase)
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L131 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:350328 CAPLUS
DOCUMENT NUMBER: 129:48960
TITLE: Enantiomeric separation of several cyclic imides on a macrocyclic antibiotic (vancomycin) chiral stationary phase under normal and reversed phase conditions
AUTHOR(S): Aboul-Enein, Hassan Y.; Serignese, Vince
CORPORATE SOURCE: Bioanalytical and Drug Development Laboratory, Biological and Medical Research (MBC-03), King Faisal Specialist Hospital and Research Centre, Riyadh, 11211, Saudi Arabia
SOURCE: Chirality (1998), 10(4), 358-361
CODEN: CHRLEP; ISSN: 0899-0042
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 10 Jun 1998
AB Several cyclic imidic compds. (barbiturates, piperidine-2,6-diones, and mephenytoin) are enantiomerically resolved via HPLC on a macrocyclic

antibiotic covalently bonded to a silica gel support. The Chirobiotic V chiral stationary phase (CSP) column contains the antibiotic vancomycin as the chiral selector. The results of the anal. show that the substituents at the chiral carbon position of the racemic drugs affect chiral resolution Ring size may also play a role when considering the formation of analyte-CSP inclusion complexes. Contrary to the piperidine-2,6-diones, the chromatog. parameters for the barbiturates are much the same under normal- or reversed-phase conditions. The details of these results are discussed.

CC 80-4 (Organic Analytical Chemistry)
Section cross-reference(s): **64**

IT 50-12-4, (±)-Mephenytoin 50-35-1, (±)-Thalidomide 56-29-1, (±)-Hexobarbital 77-21-4, (±)-Glutethimide 115-38-8, (±)-Mephobarbital 125-84-8, (±)-Aminoglutethimide 841-67-8, (-)-Thalidomide 1156-05-4, (±)-Phenglutarimide 2303-80-2, (-)-Mephobarbital 2614-06-4, (+)-Thalidomide 2671-99-0, (+)-Mephobarbital 4336-84-9, (±)-1,5-Dimethyl-5-phenylbarbituric acid 7245-04-7, (+)-Hexobarbital 7245-06-9, (-)-Hexobarbital 17575-58-5, (+)-Glutethimide 17575-59-6, (-)-Glutethimide 28900-81-4, (-)-1,5-Dimethyl-5-phenylbarbituric acid 28900-82-5, (+)-1,5-Dimethyl-5-phenylbarbituric acid 36045-93-9, (±)-1-Methyl-5-phenyl-5-n-propylbarbituric acid 37120-83-5, (-)-1-Methyl-5-phenyl-5-n-propylbarbituric acid 37120-84-6, (+)-1-Methyl-5-phenyl-5-n-propylbarbituric acid 55511-44-9, (+)-Aminoglutethimide 57288-03-6, (-)-Aminoglutethimide 70989-04-7, (+)-Mephenytoin 71140-51-7, (-)-Mephenytoin **77658-84-5** 91531-30-5 92788-10-8, (±)-Pyridoglutethimide 108929-54-0 112798-45-5, (+)-Phenglutarimide 112924-18-2, (-)-Phenglutarimide 121742-46-9, (+)-Pyridoglutethimide 121742-47-0, (-)-Pyridoglutethimide
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)
(enantiomeric separation of several cyclic imides by HPLC on Chirobiotic V chiral stationary phase under normal and reversed phase conditions)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L131 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:752824 CAPLUS
DOCUMENT NUMBER: 128:39559
TITLE: Liposomal antineoplaston therapies with markedly improved antineoplastic activity
INVENTOR(S): Byra, Anna R.; Burzynski, Stanislaw R.; Waldbillig, Robert J.
PATENT ASSIGNEE(S): Burzynski Research Institute, USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9742939	A1	19971120	WO 1997-US8167	19970514
W: CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2254772	AA	19971120	CA 1997-2254772	19970514
CA 2254772	C	20040127		
EP 906088	A1	19990407	EP 1997-923650	19970514
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6013278	A	20000111	US 1997-856133	19970514

JP 2002503209	T2	20020129	JP 1997-541103		19970514
PRIORITY APPLN. INFO.:			US 1996-17616P	P	19960514
			US 1997-856133	A	19970514
			WO 1997-US8167	W	19970514

ED Entered STN: 03 Dec 1997

AB A second generation of antineoplaston therapies with markedly improved antineoplastic activity is disclosed. Among others, members of the antineoplaston family include phenylacetate (PN), 3-phenylacetylamino-2,6-piperidinedione (CN), and hydrolysis derivs. of CN: phenylacetylglutamine (PG) and isophenylacetylglutamine (Iso-PG). In part, these increases in antineoplastic activity result from large increases in the transport of antineoplaston compns. into cells. Importantly and unexpectedly these increases in antineoplastic activity also result from the capacity of the drug delivery system to direct antineoplaston compds. intracellular trafficking to intracellular binding sites influencing cell viability and proliferation. Liposomal formulations of antineoplaston compns. increase in vitro antineoplastic activity by a factor of 750 to 1500 as compared to administration of antineoplaston compds. given without liposomal formulations. In addition, these liposomal formulations enhanced cellular uptake of antineoplaston compds. form 30 to more that 80 fold. Liposomal formulations were also found to increase intracellular levels of the antineoplaston CN by directing CN to intracellular binding sites that influence cell viability and proliferation and block its hydrolysis. Under conditions where free CN has no antineoplastic activity, liposomally formulated CN can produce essentially complete and relatively long-lasting blockade of cell growth. Cell growth was found to be restored as intracellular levels of bound CN decrease to undetectable levels.

IC ICM A61K009-127
ICS A61K031-445; A61K031-195; A61K031-19

CC 63-6 (**Pharmaceuticals**)
Section cross-reference(s): **1**

IT **Drug delivery systems**
(liposomes; liposomal antineoplaston therapies)

IT 103-82-2, Phenylacetic acid, biological studies 28047-15-6, Phenylacetylglutamine **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione 184849-22-7
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(liposomal antineoplaston therapies)

L131 ANSWER 11 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	1997:639120 CAPLUS
DOCUMENT NUMBER:	127:341205
TITLE:	Enantioselective separation of several piperidine-2,6-diones on a covalently bonded cellulose 3,5-dimethylphenyl carbamate/10-undecenoate chiral selector
AUTHOR(S):	Aboul-Enein, Hassan Y.; Serignese, Vince; Minguillon, Cristina; Oliveros, Laureano
CORPORATE SOURCE:	Bioanalytical Drug Development Lab., Biol. Medical Res. (MBC-03), King Faisal Specialist Hospital Res. Centre, Riyadh, 11211, Saudi Arabia
SOURCE:	Biomedical Chromatography (1997), 11(5), 303-306 CODEN: BICHE2; ISSN: 0269-3879
PUBLISHER:	Wiley
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ED Entered STN: 09 Oct 1997

AB A series of piperidine-2,6-dione-based drugs were enantiomerically resolved on a covalently bonded cellulose 3,5-dimethylphenyl

carbamate/10-undecenoate chiral stationary phase (CSP), under normal- or reversed-phase conditions. A single column that can be applied in both modes may be advantageous when considering the shorter setup time required and the solubility of the compound to be analyzed since many samples possess different solubilities. The covalently bonded CSP was compared to a com. available chiral adsorbent, Chiralcel OD, which was previously used for the enantiomeric resolution of the above-mentioned drug series. Chiralcel OD was used in the normal-phase mode and was more fragile than the column used here. In addition, the range of solvents available as eluents was more restricted. Thus, it was of interest to look at the possible advantages of using a chemical bonded phase that can be applied in dual mode.

CC 80-4 (Organic Analytical Chemistry)
Section cross-reference(s): 27, **63**

IT 77-21-4, Glutethimide 125-84-8, Aminoglutethimide 1121-89-7D, 2,6-Piperidinedione, chiral derivs. 38473-28-8, Acetylaminoglutethimide **77658-84-5** 115883-22-2
RL: ANT (Analyte); ANST (Analytical study)
(enantiomeric separation of; enantioselective separation of piperidine-2,6-dione pharmaceuticals with covalently bonded cellulose stationary phase)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L131 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:222135 CAPLUS
DOCUMENT NUMBER: 126:347362
TITLE: Enantiomeric separation of some piperidine-2,6-dione drugs using chiralcel OJ-R column
AUTHOR(S): Aboul-Enein, Hassan Y.; Bakr, Soliman A.
CORPORATE SOURCE: Bioanalytical and Drug Development Laboratory, Biological and Medical Research (MBC-03), King Faisal Specialist Hospital and Research Centre, Riyadh, 11211, Saudi Arabia
SOURCE: Chirality (1997), 9(1), 10-12
CODEN: CHRLEP; ISSN: 0899-0042
PUBLISHER: Wiley-Liss
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 05 Apr 1997
AB A newly developed reversed phase cellulose tris(4-Me benzoate) known as Chiralcel OJ-R was used to investigate the chiral recognition and enantiomeric separation of eight racemic piperidine-2,6-dione compds.-namely, aminoglutethimide and its major metabolite acetylaminoglutethimide, glutethimide, cyclohexylamino-glutethimide, pyridoglutethimide, thalidomide, phenglutarimide, and 3-phenylacetyl-amino-2,6-piperidinedione (antineoplaston A-10). Chiral separation of these compds. was achieved under varying ratios of the mobile phase, except for phenglutarimide and 3-phenylacetylamino-2,6-piperidinedione, for which separation was unsuccessful. Possible chiral recognition mechanisms are also presented.
CC 64-3 (**Pharmaceutical** Analysis)
IT 50-35-1, Thalidomide 77-21-4, Glutethimide 125-84-8, Aminoglutethimide 841-67-8 1121-89-7, Piperidine-2,6-dione 1156-05-4, Phenglutarimide 2614-06-4 17575-58-5 17575-59-6 38473-28-8, Acetylaminoglutethimide 55511-44-9 57288-03-6 **77658-84-5** 83155-00-4 91531-30-5, Antineoplaston A10 92788-10-8, Pyridoglutethimide 108929-54-0 112798-45-5 112924-18-2 115883-22-2 119095-49-7 121742-46-9 121742-47-0 137623-90-6 137623-92-8
RL: ANT (Analyte); ANST (Analytical study)
(enantiomeric separation of piperidine-2,6-dione drugs by HPLC using chiralcel OJ-R column)

L131 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:750266 CAPLUS

DOCUMENT NUMBER: 126:51049
TITLE: Enantioseparation of 3-phenylacetylamino-2,6-piperidinedione and related chiral compounds
AUTHOR(S): Tang, Yubing; Reepmeyer, John C.; Revelle, Larry K.; Wilson, Joe A.
CORPORATE SOURCE: Division Drug Analysis, Food & Drug Administration, St. Louis, MO, USA
SOURCE: Journal of Chromatography, A (1996), 752(1+2), 93-99
CODEN: JCRAEY; ISSN: 0021-9673
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 21 Dec 1996
AB This paper reports HPLC methodol. for the first successful enantiomeric sepns. of 3-phenylacetylamino-2,6-piperidinedione (PAP), a naturally occurring peptide derivative used for inhibiting the growth of cancer tissues. The chiral separation of four related hydrolyzates is also described. A com. available tris-4-methylbenzoate cellulose (Chiralcel OJ) column was used as the chiral stationary phase, operated in the normal-phase mode. The results demonstrated that hydrolyzed products of PAP, each of which has a carboxylic acid functionality present in its structure, eluted in a reasonable time and are enantiomerically resolved only when a trace amount of organic acid is present in the mobile phase. Different alcs. (ethanol and isopropanol) and acid additives (trifluoroacetic acid, trichloroacetic acid and acetic acid) were evaluated. In general, for the separation of the acidic enantiomers, ethanol is superior to isopropanol and stronger acids enhance the resolution more effectively. However, chiral separation of PAP could only be accomplished with isopropanol in the mobile phase and no acidic additive was needed.
CC 64-3 (**Pharmaceutical** Analysis)
IT 2752-33-2 2752-34-3 2752-35-4 3343-29-1 7607-72-9 28047-15-6 **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione 91531-30-5 104771-88-2 108929-54-0 174591-46-9 184849-21-6 184849-22-7 184972-99-4 185019-08-3
RL: ANT (Analyte); ANST (Analytical study)
(enantiomeric separation of 3-phenylacetylamino-2,6-piperidinedione and related chiral compds. by HPLC)

L131 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:758941 CAPLUS
DOCUMENT NUMBER: 123:160816
TITLE: Design of drugs involving receptor-ligand-DNA interactions
INVENTOR(S): Hendry, Lawrence B.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9514791	A1	19950601	WO 1994-US13765	19941128

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9512979	A1	19950613	AU 1995-12979		19941128
EP 740708	A1	19961106	EP 1995-904188		19941128
EP 740708	B1	20040804			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
JP 09505603	T2	19970603	JP 1994-515280		19941128
AT 272719	E	20040815	AT 1995-904188		19941128
PRIORITY APPLN. INFO.:			US 1993-158689	A	19931126
			WO 1994-US13765	W	19941128

ED Entered STN: 26 Aug 1995

AB It has been discovered that the degree of hormonal activity of candidate ligands correlates better with degree of fit into DNA than with the strength of receptor binding, and that the receptors in the steroid/thyroid hormone/vitamin A and D family alter the physiochem. properties of DNA and in concert with other transcription factors facilitate insertion of the ligand into DNA. As a result, the magnitude of the response is a function of the structure of the ligand as it relates to insertion and fit into the DNA, and the specificity of the response is a function of the stereochem. of the receptor through binding to both the ligand and to the DNA. Based on these discoveries, a method is described herein for identifying drugs having increased activity as compared with the natural ligand for receptors, e.g. estrogenic receptors.

IC ICM C12Q001-68
ICS C07H021-02; C07H021-04

CC 1-3 (**Pharmacology**)
Section cross-reference(s): 2

IT **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione 138592-72-0 167172-99-8, SGI 100 167173-00-4, SGI 101 167173-01-5, SGI 102
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(drug design involving receptor-ligand-DNA interactions)

L131 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:680507 CAPLUS
DOCUMENT NUMBER: 121:280507
TITLE: Chemical modification of antineoplaston A10 and antitumor activity of its analogs
AUTHOR(S): Huang, Junqin; Ma, Weiyong; Zhang, Chunnian
CORPORATE SOURCE: Shanghai Inst. Pharm. Ind., Shanghai, 200040, Peop. Rep. China
SOURCE: Zhongguo Yiyao Gongye Zazhi (1993), 24(10), 437-41, 451
CODEN: ZYGZEA; ISSN: 1001-8255
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

ED Entered STN: 10 Dec 1994

AB Antineoplaston A10 analogs I (R = benzyl, substituted benzyl, naphthylmethyl, thenyl, bromothenyl, PhCH:CH, etc.) were prepared by N-acylation of 3-aminopiperidine-2,6-dione with RCO2H. I showed little or no activity at 100μg/mL against L1210 leukemia cell.

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): **1**

IT **77658-84-5P** 91393-02-1P 91531-30-5DP, Antineoplaston A10, analogs 91531-30-5P 138592-85-5P 138592-87-7P 138592-89-9P 158828-54-7P 158828-55-8P 158828-56-9P 158828-57-0P 158828-58-1P 158828-59-2P 158828-60-5P 158828-61-6P 158828-63-8P 158828-64-9P 158828-65-0P 158828-66-1P 158828-67-2P 158828-68-3P 158828-69-4P 158828-70-7P 158930-24-6P 194712-35-1P
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antitumor activity of)

L131 ANSWER 16 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:124340 CAPLUS
DOCUMENT NUMBER: 120:124340
TITLE: Antitumor activity of 3-phenylacetylamino-2,6-piperidinedione and its computer modeled analogs
AUTHOR(S): Copland, John Alton, III
CORPORATE SOURCE: Med. Coll. Georgia, Augusta, GA, USA
SOURCE: (1992) 222 pp. Avail.: Univ. Microfilms Int., Order No. DA9225145
From: Diss. Abstr. Int. B 1992, 53(6), 2632
DOCUMENT TYPE: Dissertation
LANGUAGE: English
ED Entered STN: 19 Mar 1994
AB Unavailable
CC 1-6 (**Pharmacology**)
IT **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione
77658-84-5D, 3-Phenylacetylamino-2,6-piperidinedione, analogs
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antitumor activity of)

L131 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:124306 CAPLUS
DOCUMENT NUMBER: 120:124306
TITLE: In vitro and in vivo studies on the antineoplastic properties and mechanism of action of a novel amino acid analog, 3-phenylacetylamino-2,6-piperidinedione (A10)
AUTHOR(S): Wood, Joseph Clifton
CORPORATE SOURCE: Med. Coll. Georgia, Augusta, GA, USA
SOURCE: (1992) 148 pp. Avail.: Univ. Microfilms Int., Order No. DA9225153
From: Diss. Abstr. Int. B 1992, 53(5), 2201
DOCUMENT TYPE: Dissertation
LANGUAGE: English
ED Entered STN: 19 Mar 1994
AB Unavailable
CC 1-6 (**Pharmacology**)
IT **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antitumor activity of, mechanism of)

L131 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:188060 CAPLUS
DOCUMENT NUMBER: 116:188060
TITLE: Substituted piperidinediones, substituted phenylacetic acids, and substituted phenylacetylglutamines for treatment of AIDS
INVENTOR(S): Burzynski, Stanislaw R.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 5089508	A	19920218	US 1990-577464	19900904
WO 9204027	A1	19920319	WO 1991-US5977	19910821
W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MN, MW, NL, NO, PL, RO, SD, SE, SU				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG				
AU 9185397	A1	19920330	AU 1991-85397	19910821
AU 638869	B2	19930708		
EP 500905	A1	19920902	EP 1991-917237	19910821
EP 500905	B1	19960313		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 135217	E	19960315	AT 1991-917237	19910821
ES 2084181	T3	19960501	ES 1991-917237	19910821
SG 81889	A1	20010724	SG 1996-7278	19910821
ZA 9106977	A	19920624	ZA 1991-6977	19910903
US 5254587	A	19931019	US 1991-790584	19911108
US 5244922	A	19930914	US 1992-888976	19920527
WO 9324123	A1	19931209	WO 1993-US5002	19930526
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9343927	A1	19931230	AU 1993-43927	19930526
EP 601164	A1	19940615	EP 1993-914168	19930526
EP 601164	B1	20000119		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 188871	E	20000215	AT 1993-914168	19930526
ES 2142873	T3	20000501	ES 1993-914168	19930526
HK 1014499	A1	20000804	HK 1998-115815	19981228

PRIORITY APPLN. INFO.:	US 1990-577464	A	19900904
	WO 1991-US5977	A	19910821
	US 1991-790584	A2	19911108
	US 1992-888976	A	19920527
	WO 1993-US5002	A	19930526

OTHER SOURCE(S): MARPAT 116:188060
ED Entered STN: 16 May 1992
AB Piperidinedione derivs. I [R = H, OH, NH2, OW; W = C1-12 aliphatic, C(O)Z; Z = C1-12 aliphatic or aromatic; X = H, F, Cl, Br, I, OH, OW (W as above), NO2, NH2; Y = H, F, Cl, Br, I], and their pharmaceutically acceptable salts, are claimed for treatment of AIDS. Also disclosed for treatment of AIDS are hydrolysis products of I, i.e., substituted phenylacetic acids and substituted phenylacetylglutamines. Efficacy of antineoplaston AS2-1 (1:4 ratio of Na salt of phenylacetylglutamine and Na salt of phenylacetic acid) in clin. case studies is reported.
IC ICM A61K031-445
NCL 514328000
CC 1-5 (**Pharmacology**)
IT **77658-84-5 77658-84-5D**, derivs. 104624-98-8, Antineoplaston AS2-1
RL: BIOL (Biological study)
(AIDS treatment with)

L131 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:497459 CAPLUS
DOCUMENT NUMBER: 113:97459
TITLE: Preparation of 3-[(phenylacetyl)amino]piperidine-2,6-dione and its use as antineoplastic agents
INVENTOR(S): Burzynski, Stanislaw R.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 5 pp.

CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4918193	A	19900417	US 1989-295372	19890111
FI 9000129	A	19900712	FI 1990-129	19900110
FI 92391	B	19940729		
FI 92391	C	19941110		
SU 1809830	A3	19930415	SU 1990-4742866	19900110
PL 163552	B1	19940429	PL 1990-283254	19900110
KR 139204	B1	19980515	KR 1990-205	19900110
LT 3518	B	19951127	LT 1993-681	19930623

PRIORITY APPLN. INFO.: US 1989-295372 A 19890111
ED Entered STN: 16 Sep 1990
AB The title compound (I) was prepared in greater yield by an improved procedure comprising mixing L-glutamine and a phenylacetyl halide, preferably chloride, in a weakly alkaline aqueous solution, adjusting the pH to 2-3, and cyclization of the intermediate phenylacetyl glutamine by heating the reaction mixture to .apprx.160°. I-Na salt upon standing undergoes basic hydrolysis to form Na salts of its degradation products: phenylacetyl glutamine (II) and phenylacetylisoglutamine (III). In a bioassay in vitro 2 mg I/mL, 10 mg II/mL, and 3 mg/mL of a 1:4 mixture of III with C6H5CH2CO2H stabilized the number of MDA-MB-231 human breast carcinoma cells counted after 24 h from incubation and persisting for ≥48 h. The results of phase I clin. trials with I, II, III, and C6H5CH2CO2H and their mixts., involving various neoplastic diseases, were reported. The prepns. of I for injection, capsule and solns. were also given.
IC ICM C07D211-40
NCL 546220000
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): **1**, **63**
IT **77658-84-5P**, 3-[(Phenylacetyl)amino]piperidine-2,6-dione
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as antineoplastic agent)

L131 ANSWER 20 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1988:49339 CAPLUS
DOCUMENT NUMBER: 108:49339
TITLE: Use of 3-N-phenylacetylamino-2,6-piperidinedione for treatment of neuropsychiatric disorders
INVENTOR(S): Hendry, Lawrence B.; Diamond, Ana H.; Diamond, Bruce I.; Ewing, Douglas E.
PATENT ASSIGNEE(S): Stereochemical Genetics, Inc., USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4705796	A	19871110	US 1986-899822	19860825

PRIORITY APPLN. INFO.: US 1986-899822 19860825
ED Entered STN: 20 Feb 1988
AB Disorders involving monoamine oxidase(MAO) regulator are treated with 3-N-phenylacetylamnino-2,6-piperidinedione(I), which is an effective and selective MAO type B inhibitor. The effect of I on platelet MAO B

activity was studied in vitro from blood collected from normal volunteers. Compared with pargyline, I was a less potent MAO B inhibitor. In human and rat brain in vitro, I preferentially inhibited the MAO type B enzyme at concns. 10 time less than needed to affect MAO A activity.

IC ICM A61K031-445
NCL 514328000
CC 1-11 (**Pharmacology**)
IT **77658-84-5**
RL: BIOL (Biological study)
(pharmaceutical containing, for neuropsychiatric disorder treatment)

L131 ANSWER 21 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1984:635560 CAPLUS
DOCUMENT NUMBER: 101:235560
TITLE: Purified antineoplaston fractions and methods of treating neoplastic disease
INVENTOR(S): Burzynski, Stanislaw R.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 14 pp. Cont.-in-part of U.S. Ser. No. 279,728, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4470970	A	19840911	US 1981-330383	19811215
CA 1188218	A1	19850604	CA 1982-403789	19820526
AU 8284239	A1	19830106	AU 1982-84239	19820527
AU 551109	B2	19860417		
DK 8202420	A	19830103	DK 1982-2420	19820528
DK 162813	B	19911216		
DK 162813	C	19920504		
EP 69232	A2	19830112	EP 1982-104867	19820603
EP 69232	A3	19840704		
EP 69232	B1	19861029		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
IL 65960	A1	19851129	IL 1982-65960	19820603
AT 23113	E	19861115	AT 1982-104867	19820603
ES 512894	A1	19850101	ES 1982-512894	19820607
ZA 8204178	A	19830629	ZA 1982-4178	19820614
NO 8202218	A	19830103	NO 1982-2218	19820629
NO 163595	B	19900319		
NO 163595	C	19900627		
JP 58010521	A2	19830121	JP 1982-115330	19820702
JP 07029925	B4	19950405		
US 4558057	A	19851210	US 1984-642499	19840820
US 4559325	A	19851217	US 1984-642873	19840820
CA 1262907	A2	19891114	CA 1985-475098	19850225
JP 05032548	A2	19930209	JP 1991-133639	19910509
JP 07039390	B4	19950501		
JP 05058886	A2	19930309	JP 1991-133638	19910509
JP 07080764	B4	19950830		
DK 9101434	A	19910806	DK 1991-1434	19910806
PRIORITY APPLN. INFO.:			US 1981-279728 A2	19810702
			US 1981-330383 A	19811215
			CA 1982-403789 A3	19820526
			EP 1982-104867 A	19820603

ED Entered STN: 22 Dec 1984
AB Highly purified fractions from human urine exhibit antineoplastic

activity. The comprise biol. active small sized, low mol. weight peptides. 3-(Phenylacetylamino)piperidine-2,6-dione (I) [**77658-84-5**] was isolated from these fractions and showed antineoplastic activity. I was synthesized from these latter 2 compds. I was hydrolyzed 1st to N-phenylacetylglutamine [28047-15-6] and then further to PhCH2CO2H [103-82-2] and glutamine [56-85-9]. Parenteral solns. were prepared by reconstituting antineoplastic fractions, I, and its degradation products in pyrogen free H2O. The fractions showed antineoplastic activity against human breast carcinoma cultures and in patients with cancer, with I showing the highest activity.

IC A61K037-00; C07C103-52; C07G007-00
NCL 424177000
CC 63-3 (**Pharmaceuticals**)
Section cross-reference(s): **1**, 2, 27
IT **77658-84-5**
RL: BIOL (Biological study)
(of urine, as neoplasm inhibitor)

L131 ANSWER 22 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1983:137623 CAPLUS
DOCUMENT NUMBER: 98:137623
TITLE: Purified antineoplaston fractions and methods of treating neoplastic disease
INVENTOR(S): Burzynski, Stanislaw R.
PATENT ASSIGNEE(S): USA
SOURCE: Eur. Pat. Appl., 39 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 69232	A2	19830112	EP 1982-104867		19820603
EP 69232	A3	19840704			
EP 69232	B1	19861029			
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE					
US 4470970	A	19840911	US 1981-330383		19811215
AT 23113	E	19861115	AT 1982-104867		19820603
PRIORITY APPLN. INFO.:			US 1981-279728	A	19810702
			US 1981-330383	A	19811215
			EP 1982-104867	A	19820603

ED Entered STN: 12 May 1984
AB Antineoplastons (substances produced by a living organism which protect it against the development of neoplastic growth by a nonimmunol. process and which do not significantly inhibit the growth of normal tissues) were isolated from human urine by ultrafiltration (to eliminate compds. with mol. wts. >2000-5000), followed by diverse separation procedures. A common component of all the fractions was 3-(N-phenylacetylamino)piperidine-2,6-dione (I) [**77658-84-5**]. These fractions exhibited antineoplastic activity against cultures of human breast carcinoma and against various human cancers when used clin. Two hydrolysis degradation products of I, N-(phenylacetyl)glutamine [28047-15-6] and phenylacetic acid [103-82-2], also exhibited antineoplastic activity. I was synthesized by reacting a NaHCO3 solution of L-glutamine [56-85-9] with phenylacetyl chloride [103-80-0].
IC A61K037-02; A61K035-22; C07C103-52
CC 1-6 (**Pharmacology**)
IT **77658-84-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and extraction from human urine and antineoplastic activity of)

L131 ANSWER 23 OF 44 USPATFULL on STN
ACCESSION NUMBER: 2003:153436 USPATFULL
TITLE: Formulation of amino acids and riboflavin useful to reduce toxic effects of cytotoxic chemotherapy
INVENTOR(S): Burzynski, Stanislaw R., Houston, TX, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003105104	A1	20030605
APPLICATION INFO.:	US 2001-995010	A1	20011127 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HOWREY SIMON ARNOLD & WHITE, 7500 Bering Drive, Houston, TX, 77057-2198
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
LINE COUNT: 834
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Pharmaceutical compositions effective in alleviating or reducing the effects of fatigue and weakness associated with cancer and cytotoxic cancer chemotherapy are disclosed. The pharmaceutical compositions of the present invention comprise riboflavin, effectors of the urea cycle in free form or pharmacologically acceptable salts thereof, and amino acids selected from the groups of essential and non-essential amino acids, in free form or pharmaceutically acceptable salts thereof, suitably combined with appropriate carriers, diluents, or excipients. Also disclosed are methods of alleviating or reducing the effects of fatigue and weakness associated with cancer and cytotoxic cancer chemotherapy by administration of pharmaceutical compositions of the present invention.
IT **56-40-6**, Glycine, biological studies **56-41-7**, Alanine, biological studies **56-45-1**, Serine, biological studies **70-26-8**, Ornithine **72-18-4**, Valine, biological studies **72-19-5**, Threonine, biological studies **74-79-3**, Arginine, biological studies **83-88-5**, Riboflavin, biological studies **107-35-7**, Taurine **372-75-8**, Citrulline **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione
(formulation of amino acids and riboflavin useful to reduce **toxic effects** of cytotoxic chemotherapy)

L131 ANSWER 24 OF 44 USPATFULL on STN
ACCESSION NUMBER: 2002:126278 USPATFULL
TITLE: Design of drugs involving receptor-ligand-DNA interactions
INVENTOR(S): Hendry, Lawrence B., Augusta, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002064790	A1	20020530
APPLICATION INFO.:	US 2001-941230	A1	20010828 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-239491, filed on 28 Jan 1999, PATENTED Continuation of Ser. No. US 1997-864669, filed on 28 May 1997, PATENTED Continuation of Ser. No. US 1994-369779, filed on 28 Nov 1994, PATENTED Continuation-in-part of Ser. No. US 1993-158689, filed on 26 Nov 1993, ABANDONED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: John S. Pratt, Esq., KILPATRICK STOCKTON LLP, Suite 2800, 1100 Peachtree Street, Atlanta, GA, 30309-4530
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 1395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB It has been discovered that the degree of hormonal activity of candidate ligands correlates better with degree of fit into DNA than with the strength of receptor binding, and that the receptors in the steroid/thyroid hormone/vitamin A and D family alter the physiochemical properties of DNA and in concert with other transcription factors facilitate insertion of the ligand into DNA. As a result, the magnitude of the response is a function of the structure of the ligand as it related to insertion and fit into the DNA and the specificity of the response is a function of the stereochemistry of the receptor through binding to both the ligand and to the DNA. Based on these discoveries, a method is described herein for identifying drugs having increased activity as compared with the natural ligand for receptors such as the estrogenic receptors.
IT **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione
(drug design involving receptor-ligand-DNA interactions)

L131 ANSWER 25 OF 44 USPATFULL on STN
ACCESSION NUMBER: 2001:185035 USPATFULL
TITLE: Design of drugs involving receptor-ligand-DNA interactions
INVENTOR(S): Hendry, Lawrence B., 1939 Bolin Rd., North Augusta, SC, United States 29841

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6306595	B1	20011023
APPLICATION INFO.:	US 1999-239491		19990128 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-864669, filed on 28 May 1997, now patented, Pat. No. US 5888738
Continuation of Ser. No. US 1994-369779, filed on 28 Nov 1994, now patented, Pat. No. US 5705335
Continuation-in-part of Ser. No. US 1993-158689, filed on 26 Nov 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Brusca, John S.
LEGAL REPRESENTATIVE: Kilpatrick Stockton LLP
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 1345
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB It has been discovered that the degree of hormonal activity of candidate ligands correlates better with degree of fit into DNA than with the strength of receptor binding, and that the receptors in the steroid/thyroid hormone/vitamin A and D family alter the physiochemical properties of DNA and in concert with other transcription factors facilitate insertion of the ligand into DNA. As a result, the magnitude of the response is a function of the structure of the ligand as it related to insertion and fit into the DNA and the specificity of the response is a function of the stereochemistry of the receptor through binding to both the ligand and to the DNA. Based on these discoveries, a method is described herein for identifying drugs having increased activity as compared with the natural ligand for receptors such as the estrogenic receptors.

IT **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione
(drug design involving receptor-ligand-DNA interactions)

L131 ANSWER 26 OF 44 USPATFULL on STN
ACCESSION NUMBER: 1999:40164 USPATFULL
TITLE: Computer-based design and screening of molecules using DNA interactions
INVENTOR(S): Hendry, Lawrence B., 1939 Bolin Rd., North Augusta, SC, United States 29841

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5888741		19990330
APPLICATION INFO.:	US 1997-935219		19970822 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1994-369779, filed on 28 Nov 1994, now patented, Pat. No. US 5705335 which is a continuation-in-part of Ser. No. US 1993-158689, filed on 26 Nov 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Degen, Nancy
ASSISTANT EXAMINER: Brusca, John S.
LEGAL REPRESENTATIVE: Jones & Askew, LLP
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 22 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 1453
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB It has been discovered that the degree of hormonal activity of candidate ligands correlates better with degree of fit into DNA than with the strength of receptor binding, and that the receptors in the steroid/thyroid hormone/vitamin A and D family alter the physiochemical properties of DNA and in concert with other transcription factors facilitate insertion of the ligand into DNA. As a result, the magnitude of the response is a function of the structure of the ligand as it related to insertion and fit into the DNA and the specificity of the response is a function of the stereochemistry of the receptor through binding to both the ligand and to the DNA. Based on these discoveries, a method is described herein for identifying drugs having increased activity as compared with the natural ligand for receptors such as the estrogenic receptors.
IT **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione
(drug design involving receptor-ligand-DNA interactions)

L131 ANSWER 27 OF 44 USPATFULL on STN
ACCESSION NUMBER: 1999:40161 USPATFULL
TITLE: Design of drugs involving receptor-ligand-DNA interactions
INVENTOR(S): Hendry, Lawrence B., 1939 Bolin Rd., North Augusta, SC, United States 29841

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5888738		19990330
APPLICATION INFO.:	US 1997-864669		19970528 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1994-369779, filed on 28 Nov 1994, now patented, Pat. No. US 5705335 which is a continuation-in-part of Ser. No. US 1993-158689, filed on 26 Nov 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Degen, Nancy

ASSISTANT EXAMINER: Brusca, John S.
LEGAL REPRESENTATIVE: Jones & Askew, LLP
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 1407
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB It has been discovered that the degree of hormonal activity of candidate ligands correlates better with degree of fit into DNA than with the strength of receptor binding, and that the receptors in the steroid/thyroid hormone/vitamin A and D family alter the physiochemical properties of DNA and in concert with other transcription factors facilitate insertion of the ligand into DNA. As a result, the magnitude of the response is a function of the structure of the ligand as it related to insertion and fit into the DNA and the specificity of the response is a function of the stereochemistry of the receptor through binding to both the ligand and to the DNA. Based on these discoveries, a method is described herein for identifying drugs having increased activity as compared with the natural ligand for receptors such as the estrogenic receptors.
IT **77658-84-5**, 3-Phenylacetylamino-2,6-piperidinedione
(drug design involving receptor-ligand-DNA interactions)

L131 ANSWER 28 OF 44 IPA COPYRIGHT 2005 ASHP on STN DUPLICATE 2

ACCESSION NUMBER: 2003:11775 IPA
DOCUMENT NUMBER: 40-11775
TITLE: Phase II study of antineoplaston A10 and AS2-1 in patients with recurrent diffuse intrinsic brain stem glioma - A preliminary report
AUTHOR: Burzynski, SR; Lewy, RI; Weaver, RA; Axler, ML; Bestak, M; et al
CORPORATE SOURCE: Burzynski Clin, Dept Internal Med, 9432 Old Katy Rd, Houston, TX, USA info@burzynskiclinic.com
SOURCE: Drugs in R and D, (2003) Vol. 4, pp. 91-101. 41 Refs.
CODEN: DRURDA; ISSN: 1174-5886.
DOCUMENT TYPE: Journal
FILE SEGMENT: HUMAN
LANGUAGE: English
ABSTRACT:

Objective: A phase 2 study of antineoplaston A10 and AS2-1 was conducted to evaluate the antineoplastic activity in patients with recurrent diffuse intrinsic brain stem glioma.

Patients and methods: This report describes the results of treatment of the first 12 patients admitted to the study. Patients received escalating doses of antineoplaston A10 and AS2-1 by intravenous bolus injections. The median duration of treatment was 6 months and the average dosage of antineoplaston A10 was 11.3 g/kg/day and of antineoplaston AS2-1 0.4 g/kg/day. Responses were assessed by gadolinium-enhanced magnetic resonance imaging of the head.

Results: Of ten evaluable patients, complete response was determined in two cases (20%), partial response in three (30%), stable disease in three (30%) and progressive disease in two (20%). Survival at 2 years was 33.3%. Currently, of all 12 patients, two (17%) were alive and tumour free for over 5 years since initial diagnosis; one was alive for more than 5 years, and another for more than 4 years from the start of treatment. Only mild and moderate toxicities were observed, which included three cases of skin allergy, two cases of anaemia, fever and hypernatraemia, and single cases of agranulocytosis, hypoglycaemia, numbness, tiredness, myalgia and vomiting.

Conclusion: The results of this study compared favourably with the

responses of patients treated with radiation therapy and **chemotherapy** . The study continues with accrual of additional patients.
SECTION: 5 Investigational Drugs; 4 Toxicity
CLASSIFICATION: 10:00 Antineoplastic agents; 10:00 Antineoplastic agents
INDEX TERM: Antineoplaston A10; glioma
INDEX TERM: Antineoplaston AS2-1; glioma
INDEX TERM: Glioma; antineoplaston A10
INDEX TERM: Dosage; antineoplaston A10
INDEX TERM: **Toxicity**; antineoplaston A10
INDEX TERM: Antineoplastic agents; antineoplaston A10
INDEX TERM: Glioma; antineoplaston AS2-1
INDEX TERM: Dosage; antineoplaston AS2-1
INDEX TERM: **Toxicity**; antineoplaston AS2-1
INDEX TERM: Antineoplastic agents; antineoplaston AS2-1
CAS REGISTRY NO.: **77658-84-5 (Antineoplaston A10)**
CAS REGISTRY NO.: 104624-98-8 (Antineoplaston AS2-1)

L131 ANSWER 29 OF 44 IPA COPYRIGHT 2005 ASHP on STN DUPLICATE 3

ACCESSION NUMBER: 2000:11825 IPA
DOCUMENT NUMBER: 37-11826
TITLE: Retrospective study of antineoplastons A10 and AS2-1 in primary brain tumors
AUTHOR: Burzynski, S. R.; Conde, A. B.; Peters, A.; Saling, B.; Nacht, C. H.; et al
CORPORATE SOURCE: Burzynski Clin., 12000 Richmond Ave., Houston, TX 77082-2431, USA Internet: jpaszkowia@aol.com
SOURCE: Clinical Drug Investigation (New Zealand), (Jul 1999) Vol. 18, pp. 1-10. 30 Refs.
CODEN: CDINFR; ISSN: 1173-2563.
DOCUMENT TYPE: Journal
FILE SEGMENT: HUMAN
LANGUAGE: English
ABSTRACT:
To evaluate the new treatment of brain tumors with antineoplastons, a study of 36 patients (median age 38.5 yr) who had failed established therapies and received daily intravenous injections of antineoplastons A10 and AS2-1 at average dosages of 7.7 and 0.36 g/kg/day, respectively, was conducted.

Antineoplaston therapy eliminated or substantially reduced tumors in 44% of patients with brain tumors. It produced complete response in 9 patients, partial response in 7 patients, stable disease in 12 patients, and progressive disease in 8 patients. **Adverse** drug **effects** included skin rash, somnolence, weakness, nausea, vomiting, slurred speech, and abnormalities in plasma electrolytes, and were reversed on temporary discontinuation or dose reduction. Compared with standard treatment, antineoplaston therapy was associated with prolonged survival time and prolonged time to disease progression.
Yinghua Shu Wang
SECTION: 5 Investigational Drugs; 4 Toxicity
CLASSIFICATION: 10:00 Antineoplastic agents; 10:00 Antineoplastic agents
INDEX TERM: Antineoplaston A10; brain neoplasms
INDEX TERM: Antineoplaston AS2-1; brain neoplasms
INDEX TERM: Brain neoplasms; antineoplaston A10
INDEX TERM: Brain neoplasms; antineoplaston AS2-1
INDEX TERM: Antineoplastic agents; antineoplaston A10; brain neoplasms
INDEX TERM: Antineoplastic agents; antineoplaston AS2-1; brain neoplasms
INDEX TERM: **Toxicity**; antineoplaston A10
INDEX TERM: **Toxicity**; antineoplaston AS2-1
CAS REGISTRY NO.: **77658-84-5 (Antineoplaston A10)**
CAS REGISTRY NO.: 104624-98-8 (Antineoplaston AS2-1)

L131 ANSWER 30 OF 44 IPA COPYRIGHT 2005 ASHP on STN DUPLICATE 7

ACCESSION NUMBER: 86:4535 IPA
DOCUMENT NUMBER: 24-05051
TITLE: Toxicology studies on antineoplaston A10 injections in cancer patients
AUTHOR: Burzynski, S. R.; Kubove, E.
CORPORATE SOURCE: Burzynski Res. Inst., Inc., 12707 Trinity Drive, Stafford, TX 77477
SOURCE: Drugs Under Experimental and Clinical Research (Switzerland), (1986) Vol. 12, pp. 47-55. 11 Refs. CODEN: DECRDR; ISSN: 0378-6501.
DOCUMENT TYPE: Journal
FILE SEGMENT: HUMAN
LANGUAGE: English
ABSTRACT:

Toxicology studies of antineoplaston A10 (3-phenylacetylamino-2,6-piperidinedione) in 18 cancer patients following intravenous injection of up to 2.21 g/kg/day for 52 to 640 days are described.

The treatment was associated with minimal **side effects** including febrile reactions, muscle and joint pain, muscle contraction in the throat, abdominal pain, nausea, dizziness and headache. Objective response was noticed in 8 patients.

Victor Origoni
SECTION: 4 Toxicity; 5 Investigational Drugs
CLASSIFICATION: 10:00 Antineoplastic agents
INDEX TERM: Antineoplaston A10; **toxicity**
INDEX TERM: **Toxicity**; antineoplaston A10; **side effects**
INDEX TERM: Antineoplastic agents; antineoplaston A10; **toxicity**
CAS REGISTRY NO.: **77658-84-5 (Antineoplaston A10)**
CHEMICAL NAME: Antineoplaston A10 (3-Phenylacetylamino-2,6-piperidinedione)

L131 ANSWER 31 OF 44 IPA COPYRIGHT 2005 ASHP on STN DUPLICATE 8

ACCESSION NUMBER: 84:10760 IPA
DOCUMENT NUMBER: 23-06501
TITLE: Human toxicology studies on oral formulation of antineoplaston A10
AUTHOR: Burzynski, S. R.; Mohabbat, M. O.; Burzynski, B.
CORPORATE SOURCE: Burzynski Res. Inst., 12707 Trinity Dr., Stafford, TX 77477
SOURCE: Drugs Under Experimental and Clinical Research (Switzerland), (1984) Vol. 10, pp. 891-909. 7 Refs. CODEN: DECRDR; ISSN: 0378-6501.
DOCUMENT TYPE: Journal
FILE SEGMENT: HUMAN
LANGUAGE: English
ABSTRACT:

The long term effect of 0.5 g oral antineoplaston A10 (I) capsule was evaluated in 42 patients (aged 17-72 yr) with 49 types of advanced neoplastic disease given 3-4 I capsules every 3-6 h.

The treatment with I was associated with minimal adverse reactions which included excessive gas in the stomach, gastrointestinal bleeding (probably unrelated to I), maculopapular rash, moderately increased blood pressure, vertigo, hypoglycemia and mild myelosuppression. At least some positive response manifested by clinical improvement was found in 75% of the 49 treated cases. The additional beneficial effects of I treatment included a decrease in plasma levels of triglycerides and cholesterol, an increase in white blood cell count and platelet count and the improvement of blood clotting.

It was concluded that more extensive clinical testing will be necessary to establish the effectiveness of I in neoplasm therapy.

Nancy F. Cruz
SECTION: 4 Toxicity; 5 Investigational Drugs
CLASSIFICATION: 10:00 Antineoplastic agents
INDEX TERM: Antineoplaston A10; oral; long term effects, neoplasms
INDEX TERM: Antineoplastic agents; antineoplaston A10; oral, long term effects, neoplasms
INDEX TERM: Dosage schedules; antineoplaston A10; long term, effects
INDEX TERM: Neoplasms; antineoplaston A10; oral, long term effects
INDEX TERM: **Toxicity**; antineoplaston A10; **side effects**
CAS REGISTRY NO.: **77658-84-5 (Antineoplaston A10)**

L131 ANSWER 32 OF 44 IPA COPYRIGHT 2005 ASHP on STN DUPLICATE 9

ACCESSION NUMBER: 84:10035 IPA
DOCUMENT NUMBER: 23-02080
TITLE: Toxicology studies on oral formulation of antineoplaston A10 in cancer patients
AUTHOR: Burzynski, S. R.; Mohabbat, M. O.; Burzynski, B.
CORPORATE SOURCE: Burzynski Res. Inst., Inc., 12707 Trinity Dr., Stafford, TX 77477
SOURCE: Drugs Under Experimental and Clinical Research (Switzerland), (1984) Vol. 10, pp. 611-619. 8 Refs.
CODEN: DECRDR; ISSN: 0378-6501.
DOCUMENT TYPE: Journal
FILE SEGMENT: HUMAN
LANGUAGE: English
ABSTRACT:

The effect of chronic administration of antineoplaston A10 (3-phenylacetylamino-2,6-piperidinedione) was studied in 42 patients with advanced neoplastic diseases: the patients received 500 mg capsules for periods of 6 to 314 days.

The highest dose administered was 14 g over 24 h. Most patients were treated for 50 to 149 days. Therapy was associated with mild **side** ***effects*** , these included excess gas in the stomach, GI bleeding, maculopapular rash, moderately increased blood pressure, vertigo, hypoglycemia, hypokalemia and mild myelosuppression.

D. L. Thompson
SECTION: 5 Investigational Drugs
CLASSIFICATION: 10:00 Antineoplastic agents
INDEX TERM: Antineoplaston A10; **toxicity**
INDEX TERM: Antineoplastic agents; antineoplaston A10; **toxicity**
INDEX TERM: **Toxicity**; antineoplaston A10
CAS REGISTRY NO.: **77658-84-5 (Antineoplaston A10)**
CHEMICAL NAME: Antineoplaston A10 (3-Phenylacetylamino-2,6-piperidinedione)

L131 ANSWER 33 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 2001:99118 BIOSIS
DOCUMENT NUMBER: PREV200100099118
TITLE: Novel piperidinedione analogs as inhibitors of breast cancer cell growth.
AUTHOR(S): Abou-Zeid, L. A.; El-Mowafy, A. M. [Reprint author]; El-Ashmawy, M. B.; Hendry, L. B.; Abdelal, A. M.; Badria, F. A.
CORPORATE SOURCE: Department of Applied Therapeutics, Faculty of Pharmacy, Kuwait University, Safat, Kuwait
SOURCE: Archiv der Pharmazie (Weinheim), (December, 2000) Vol. 333, No. 12, pp. 431-434. print.
CODEN: ARPMAS. ISSN: 0365-6233.
DOCUMENT TYPE: Article

LANGUAGE: English
ENTRY DATE: Entered STN: 21 Feb 2001
Last Updated on STN: 15 Feb 2002
ABSTRACT:We previously reported the utility of antineoplaston-A10 (3-phenylacetylamino-2,6-piperidinedione) as an endogenous cancer protector and immune modulator in breast cancer patients (Cancer Lett., 2000, 157, 57). In this study, four new piperidinedione A10 analogs were synthesized and tested for their antimitotic activity on a human breast cancer cell line against the prototype A10 and the antibreast cancer **drug** tamoxifen. Moreover, the DNA binding capacity of such compounds was evaluated against A10. (E)-3-(4-Nitrocinnamoylamino)-2,6-piperidinedione "3B" and (E)-3-(4-hydroxycinnamoylamino)-2,6-piperidinedione "3D" were several-fold more potent antiproliferative agents than A10 and tamoxifen. They also had significantly higher capacity to bind DNA than A10. Conversely, (E)-3-(cinnamoylamino)-2,6-piperidinedione "3A" and (E)-3-(4-methoxycinnamoylamino)-2,6-piperidinedione) "3C" had weaker biological profiles than the lead compound A10. Detailed synthetic, spectroscopic, and biological data are reported.
CONCEPT CODE: Reproductive system - Physiology and biochemistry 16504
Cytology - Human 02508
Biochemistry studies - General 10060
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Pathology - Therapy 12512
Reproductive system - Pathology 16506
Pharmacology - General 22002
Pharmacology - Clinical pharmacology 22005
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Therapeutic agents and therapy 24008
INDEX TERMS: Major Concepts
Pharmacology; Reproductive System (Reproduction); Tumor Biology
INDEX TERMS: Diseases
breast cancer: neoplastic disease, reproductive system disease
Breast Neoplasms (MeSH)
INDEX TERMS: Chemicals & Biochemicals
(E)-3-(4-hydroxycinnamoylamino)-2,6-piperidinedione: antimitotic-**drug**, antineoplastic-**drug**, antimitotic activity, synthesis; (E)-3-(4-methoxycinnamoylamino)-2,6-piperidinedione): antimitotic-**drug**, antineoplastic-**drug**, antimitotic activity, synthesis; (E)-3-(4-nitrocinnamoylamino)-2,6-piperidinedione: antimitotic-**drug**, antineoplastic-**drug**, antimitotic activity, synthesis; (E)-3-(cinnamoylamino)-2,6-piperidinedione: antimitotic-**drug**, antineoplastic-**drug**, antimitotic activity, synthesis; 3-phenylacetylamino-2,6-piperidinedione [A-10]: antineoplastic-**drug**, analogs, antineoplaston; DNA; piperidinedione analogs: antineoplastic activity; tamoxifen: antineoplastic-**drug**
INDEX TERMS: Methods & Equipment
spectroscopic analysis: analytical method
INDEX TERMS: Miscellaneous Descriptors
binding affinity
ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name

MCF-7 cell line: human breast cancer cells
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
REGISTRY NUMBER: **77658-84-5** (3-phenylacetylamino-2,6-piperidinedione)
77658-84-5 (A-10)
10540-29-1 (tamoxifen)

L131 ANSWER 34 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1997:356904 BIOSIS
DOCUMENT NUMBER: PREV199799663307
TITLE: Enantiomeric separation of some piperidine-2,6-dione drugs on tolylcellulose by liquid chromatography.
AUTHOR(S): Van Overbeke, An; Aboul-Enein, Hassan Y. [Reprint author]; Baeyens, Willy; Van Der Weken, Guido; Dewaele, Chris
CORPORATE SOURCE: Biological and Med. Res., MBC-03, King Faisal Specialist Hosp. and Res. Centre, P.O. Box 33544, Riyadh 11211, Saudi Arabia
SOURCE: Analytica Chimica Acta, (1997) Vol. 346, No. 2, pp. 183-189.
CODEN: ACACAM. ISSN: 0003-2670.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Aug 1997
Last Updated on STN: 27 Oct 1997
ABSTRACT:The direct liquid chromatographic resolution of a group of drugs, all having a piperidine-2,6-dione structure in common was investigated using a cellulose-based chiral stationary phase. The experimental tris(4-methylbenzoate) cellulose column (BioRad RSL, Belgium) has the polymeric layer covalently bonded onto an aminopropylated silica support. Reversed phase as well as normal phase conditions were applied without deterioration of the column. Aminoglutethimide and glutethimide were easily resolved using methanol-water mixtures as mobile phase. Acetylaminoglutethimide, the major metabolite of aminoglutethimide, was separated from the parent **drug** but its enantiomers were not completely resolved. Thalidomide enantiomers were at best resolved under normal phase conditions with n-hexane as the major constituent of the mobile phase. No chiral interaction on this column was noticed for 3-phenylacetylaminopiperidine-2,6-dione.
CONCEPT CODE: Biochemistry methods - General 10050
Biochemistry studies - General 10060
Biophysics - Methods and techniques 10504
Pharmacology - General 22002
INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Methods and Techniques; Pharmacology
INDEX TERMS: Chemicals & Biochemicals
PIPERIDINE-2,6-DIONE; GLUTETHIMIDE; AMINOGLUTETHIMIDE; 3-PHENYLACETYLAMINOPIPERIDINE-2,6-DIONE; THALIDOMIDE
INDEX TERMS: Miscellaneous Descriptors
AMINOGLUTETHIMIDE; CYCLOHEXYLAMINOGLUTETHIMIDE; ENANTIOMERIC SEPARATION; GLUTETHIMIDE; METHODOLOGY; N-ACETYLAMINOGLUTETHIMIDE; NORMAL PHASE; PHARMACEUTICALS; PIPERIDINE-2,6-DIONE DRUGS; REVERSED PHASE; SEPARATION METHOD; THALIDOMIDE; TOLYLCELLULOSE COLUMN LIQUID CHROMATOGRAPHY; 3-PHENYLACETYLAMINOPIPERIDINE-2,6-DIONE
REGISTRY NUMBER: 1121-89-7 (PIPERIDINE-2,6-DIONE)
77-21-4 (GLUTETHIMIDE)
125-84-8 (AMINOGLUTETHIMIDE)
77658-84-5 (3-PHENYLACETYLAMINOPIPERIDINE-2,6-

DIONE)
50-35-1 (THALIDOMIDE)

L131 ANSWER 35 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1993:390859 BIOSIS
DOCUMENT NUMBER: PREV199396066159
TITLE: Further studies on the specificity of interaction of 3-phenylacetylamino-2,6-piperidinedione with DNA.
AUTHOR(S): Lehner, A. F. [Reprint author]; Burzynski, S. R.; Hendry, L. B.
CORPORATE SOURCE: Augusta Lab. Inc., PO Box 3293, Augusta, GA 30904, USA
SOURCE: International Journal of Experimental and Clinical Chemotherapy, (1992) Vol. 5, No. 2, pp. 63-71.
CODEN: IJECED. ISSN: 0933-0453.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Aug 1993
Last Updated on STN: 28 Sep 1993
ABSTRACT:Spectroscopic studies were carried out on the interactions of DNA with Antineoplaston A10 (3-phenylacetylamino-2,6-piperidinedione), a dipeptide with specific chemical modifications and with a described antineoplastic activity. DNA thermal denaturation studies indicated that A10 can interact with defined polydeoxynucleotides, as seen most notably in the concentration-dependent stabilization of poly(dAdG)*poly(dCdT). These findings agree with DNA modeling studies which have demonstrated that A10 is capable of stereospecific insertion between certain base pair sequences in DNA, in particular 5'-dTdT-3'*5'-dAdA-3',5'-dTdC-3'*5'-dGdA-3', and 5'-dCdT-3'*5'-dAdG-3'. Note that 2 of these two-base sequences occur repeatedly in poly(dAdG)*poly(dCdT). The effects of A10 on DNA were compared with those of the A10 hydrolysis product phenylacetylisoglutamine (PAisoG). The A10-DNA interaction was much stronger than that between PAisoG and DNA by the Tm criteria, and this suggests that the piperidinedione ring of A10 plays an essential role in stabilizing DNA during thermal denaturation. The latter concept was supported by observation of even weaker interactions of the DNA with phenylacetic acid, which is the residue after complete removal of the amino-2,6-piperidinedione moiety from A10. In light of these physicochemical studies and their general agreement with DNA modeling, a scheme is proposed whereby A10 may exert some of its antineoplastic properties by prevention or alleviation of certain mutagenic lesions at DNA sequences containing adjacent pyrimidines.
CONCEPT CODE: Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Proteins, peptides and amino acids 10064
Biophysics - Molecular properties and macromolecules 10506
Pharmacology - General 22002
Neoplasms - Therapeutic agents and therapy 24008
INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Pharmacology; Tumor Biology
INDEX TERMS: Chemicals & Biochemicals
3-PHENYLACETYLAMINO-2,6-PIPERIDINEDIONE; ANTINEOPLASTON A10
INDEX TERMS: Miscellaneous Descriptors
ANTINEOPLASTIC-**DRUG**; TUMOR CELL DEVELOPMENT
REGISTRY NUMBER: **77658-84-5** (3-PHENYLACETYLAMINO-2,6-PIPERIDINEDIONE)
91531-30-5 (ANTINEOPLASTON A10)

L131 ANSWER 36 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1991:480777 BIOSIS
DOCUMENT NUMBER: PREV199192114537; BA92:114537
TITLE: 3 PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE INHIBITION OF RAT NB2 LYMPHOMA CELL MITOGENESIS.
AUTHOR(S): WOOD J C [Reprint author]; COPLAND J A; MULDOON T G; HENDRY L B
CORPORATE SOURCE: DEP PHYSIOL AND ENDOCRINOL, CLW 334, MEDICAL COLL GA, AUGUSTA, GA 30912, USA
SOURCE: Proceedings of the Society for Experimental Biology and Medicine, (1991) Vol. 197, No. 4, pp. 404-408.
CODEN: PSEBAA. ISSN: 0037-9727.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 26 Oct 1991
Last Updated on STN: 8 Jan 1992

ABSTRACT:3-Phenylacetylamino-2,6-piperidinedione (A10), an amino acid analog, has been reported to possess antineoplastic activity against certain neoplastic tissues. The antimitogenic properties of A10 were studied by determining its effect on prolactin (PRL)- and interleukin 2 (IL-2)-stimulated mitogenic responses in the rat Nb2 lymphoma cell line. The addition of A10 (1-12 mM) to PRL (0.4 ng/ml)-stimulated cells inhibited growth in a dose-dependent manner. DNA synthesis patterns studies by thymidine incorporation demonstrated that A10 was significantly inhibitory (25% at 20 hr; 50% at 40 hr, $P < 0.01$). IL-2 stimulation of mitogenesis was also sensitive to A10 inhibition. The inhibition of PRL stimulated mitogenesis was reversible when A10 was removed after 24 hr of culture and A10 showed no **toxicity** in a chromium release assay. These data suggest that A10 effects may be cytostatic, rather than cytotoxic.

CONCEPT CODE:
Cytology - Animal 02506
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Carbohydrates 10068
Pathology - Therapy 12512
Metabolism - Nucleic acids, purines and pyrimidines 13014
Blood - Blood, lymphatic and reticuloendothelial pathologies 15006
Blood - Lymphatic tissue and reticuloendothelial system 15008
Endocrine - General 17002
Endocrine - Pituitary 17014
Pharmacology - Clinical pharmacology 22005
Pharmacology - Blood and hematopoietic agents 22008
Neoplasms - Neoplastic cell lines 24005
Neoplasms - Therapeutic agents and therapy 24008
Neoplasms - Blood and reticuloendothelial neoplasms 24010

INDEX TERMS:
Major Concepts
Blood and Lymphatics (Transport and Circulation); Endocrine System (Chemical Coordination and Homeostasis); Metabolism; Pharmacology; Tumor Biology

INDEX TERMS:
Miscellaneous Descriptors
ANTINEOPLASTIC-**DRUG** PROLACTIN INTERLEUKIN 2
DNA SYNTHESIS

ORGANISM:
Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: **77658-84-5** (3-PHENYLACETYLAMINO-2,6-PIPERIDINEDIONE)
9002-62-4 (PROLACTIN)

L131 ANSWER 37 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1991:354729 BIOSIS
DOCUMENT NUMBER: PREV199141039244; BR41:39244
TITLE: IN-VITRO AND IN-VIVO INHIBITION OF ESTROGEN INDUCED TUMOR GROWTH BY A NOVEL ANTITUMOR COMPOUND.
AUTHOR(S): COPLAND J A [Reprint author]; WOOD J C; HENDRY L B; PANTAZIS C G; CHU C K; MAHESH V B
CORPORATE SOURCE: DEP PHYSIOL AND ENDOCRINOL, MED GA, AUGUSTA, GA 30912, USA
SOURCE: Proceedings of the American Association for Cancer Research Annual Meeting, (1991) Vol. 32, pp. 131.
Meeting Info.: 82ND ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH, HOUSTON, TEXAS, USA, MAY 15-18, 1991. PROC AM ASSOC CANCER RES ANNU MEET.
ISSN: 0197-016X.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 1 Aug 1991
Last Updated on STN: 11 Sep 1991
CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Cytology - Animal 02506
Cytology - Human 02508
Biochemistry studies - General 10060
Biochemistry studies - Sterols and steroids 10067
Pathology - Therapy 12512
Endocrine - Gonads and placenta 17006
Pharmacology - General 22002
Pharmacology - Endocrine system 22016
Neoplasms - Therapeutic agents and therapy 24008
INDEX TERMS: Major Concepts
Cell Biology; Oncology (Human Medicine, Medical Sciences); Pharmacology
INDEX TERMS: Miscellaneous Descriptors
ABSTRACT HUMAN MCF-7 CELLS MOUSE 3 PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE P HYDROXY-3-PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE ANTINEOPLASTIC-**DRUG** ANTIESTROGEN AGENTS
ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
REGISTRY NUMBER: **77658-84-5** (3-PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE)

L131 ANSWER 38 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1990:348286 BIOSIS
DOCUMENT NUMBER: PREV199039043547; BR39:43547
TITLE: PARA-HYDROXYLATION OF 3 PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE INCREASES THE INHIBITION OF PROLACTIN STIMULATED NB-2 CELL MITOGENESIS.
AUTHOR(S): WOOD J C [Reprint author]; HUANG H Q; CHU C K; HENDRY L B
CORPORATE SOURCE: DEP PHYSIOL AND ENDOCRINOL, MED COLL GA, AUGUSTA, GA 30912, USA
SOURCE: Proceedings of the American Association for Cancer Research Annual Meeting, (1990) Vol. 31, pp. 410.
Meeting Info.: 81ST ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH, WASHINGTON, D.C., USA, MAY 23-26, 1990. PROC AM ASSOC CANCER RES ANNU MEET.
ISSN: 0197-016X.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 26 Jul 1990
Last Updated on STN: 30 Aug 1990
CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Cytology - Animal 02506
Genetics - Animal 03506
Biochemistry studies - General 10060
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Pathology - Therapy 12512
Metabolism - General metabolism and metabolic pathways 13002
Pharmacology - Drug metabolism and metabolic stimulators 22003
Neoplasms - Neoplastic cell lines 24005
Neoplasms - Therapeutic agents and therapy 24008
In vitro cellular and subcellular studies 32600
INDEX TERMS: Major Concepts
Genetics; Metabolism; Pharmacology; Tumor Biology
INDEX TERMS: Miscellaneous Descriptors
ABSTRACT ANTINEOPLASTIC-**DRUG** PHARMACOKINETICS
DNA BINDING
ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
REGISTRY NUMBER: **77658-84-5** (3-PHENYLACETYLAMINO-2,6-PIPERIDINEDIONE)
9002-62-4 (PROLACTIN)

L131 ANSWER 39 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1990:467114 BIOSIS
DOCUMENT NUMBER: PREV199039102475; BR39:102475
TITLE: STRUCTURE-ACTIVITY RELATIONSHIPS MOLECULAR MODELING AND ANTITUMOR ACTIVITY OF 2 6 PIPERIDINEDIONES.
AUTHOR(S): HENDRY L B [Reprint author]; CHU C K; HUANG H; WOOD J C; COPLAND J A; MAHESH V B
CORPORATE SOURCE: DEP PHYSIOL ENDOCRINOL, MEDICAL COLLEGE GEORGIA, STEREOCHEMICAL GENETICS INC, PO BOX 11649, AUGUSTA, GA 30912, USA
SOURCE: Abstracts of Papers American Chemical Society, (1990) Vol.

200, No. 1-2, pp. MEDI 148.
Meeting Info.: 200TH AMERICAN CHEMICAL SOCIETY NATIONAL MEETING, WASHINGTON, D.C., USA, AUGUST 26-31, 1990. ABSTR PAP AM CHEM SOC.
CODEN: ACSRAL. ISSN: 0065-7727.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 13 Oct 1990
Last Updated on STN: 4 Jan 1991
CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - General 10060
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biophysics - Molecular properties and macromolecules 10506
Pharmacology - Clinical pharmacology 22005
Neoplasms - Biochemistry 24006
Neoplasms - Therapeutic agents and therapy 24008
INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Oncology (Human Medicine, Medical Sciences); Pharmacology
INDEX TERMS: Miscellaneous Descriptors
ABSTRACT HUMAN RAT MOUSE 3 PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE ANTINEOPLASTIC-**DRUG** DNA COMPLEX
ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
REGISTRY NUMBER: 1121-89-7D (2,6-PIPERIDINEDIONES)
77658-84-5 (3-PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE)

L131 ANSWER 40 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1989:20538 BIOSIS
DOCUMENT NUMBER: PREV198936008215; BR36:8215
TITLE: ACTIONS OF AN ENDOGENOUS ANTITUMORIGENIC AGENT ON MAMMARY TUMOR DEVELOPMENT AND MODELING ANALYSIS OF ITS CAPACITY FOR INTERACTING WITH DNA.
AUTHOR(S): HENDRY L B [Reprint author]; MULDOON T G
CORPORATE SOURCE: DEP MED, MED COLL GEORGIA, AUGUSTA, GA 30912, USA
SOURCE: Journal of Steroid Biochemistry, (1988) Vol. 30, No. 1-6, pp. 325-328.
Meeting Info.: MEETING ON RECENT ADVANCES IN STEROID BIOCHEMISTRY HELD AT THE EIGHTH INTERNATIONAL SYMPOSIUM OF THE JOURNAL OF STEROID BIOCHEMISTRY, PARIS, FRANCE, MAY 24-27, 1987. J STEROID BIOCHEM.
CODEN: JSTBBK. ISSN: 0022-4731.
DOCUMENT TYPE: Conference; (Meeting)

FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 13 Dec 1988
Last Updated on STN: 13 Dec 1988
CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Genetics - Animal 03506
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Reproductive system - Pathology 16506
Endocrine - Gonads and placenta 17006
Pharmacology - Endocrine system 22016
Neoplasms - Biochemistry 24006
Neoplasms - Therapeutic agents and therapy 24008
INDEX TERMS: Major Concepts
Endocrine System (Chemical Coordination and Homeostasis); Genetics; Pharmacology; Reproductive System (Reproduction); Tumor Biology
INDEX TERMS: Miscellaneous Descriptors
RAT MOUSE ANTINEOPLASTIN A-10 3 PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE ANTINEOPLASTIC-**DRUG** ANDROGEN INHIBITION ANTI-ESTROGEN SUPPRESSION
ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
REGISTRY NUMBER: **77658-84-5** (3-PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE)

L131 ANSWER 41 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1986:288757 BIOSIS
DOCUMENT NUMBER: PREV198631023335; BR31:23335
TITLE: TOPICAL USE OF 3 PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE FOR TREATMENT OF SKIN WRINKLES AND HYPERPIGMENTATION US PATENT-4593038. JUNE 3 1986.
AUTHOR(S): BURZYNSKI S R [Inventor, Reprint author]
CORPORATE SOURCE: 5 CONCORD CIR, HOUSTON, TEX 77024, USA
PATENT INFORMATION: US 4593038 June 03, 1986
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (1986) Vol. 1067, No. 1, pp. 318.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 12 Jul 1986
Last Updated on STN: 12 Jul 1986
NAT. PATENT. CLASSIF.:514328000
CONCEPT CODE: Biochemistry studies - General 10060
Pathology - Therapy 12512
Integumentary system - General and methods 18501
Pharmacology - Clinical pharmacology 22005
Pharmacology - Integumentary system, dental and oral biology 22020
Routes of immunization, infection and therapy 22100
INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Integumentary System (Chemical Coordination and Homeostasis); Pharmacology

INDEX TERMS: Miscellaneous Descriptors
USCL-514-328 DERMATOLOGICAL-**DRUG**
REGISTRY NUMBER: **77658-84-5** (3-PHENYLACETYLAMINO-2,6-PIPERIDINEDIONE)

L131 ANSWER 42 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1987:79848 BIOSIS
DOCUMENT NUMBER: PREV198732040041; BR32:40041
TITLE: INVESTIGATION OF THE MODE OF ACTION OF ANTINEOPLASTON A10 EVIDENCE FOR BINDING TO DNA.
AUTHOR(S): HENDRY L B [Reprint author]; LEHNER A F; MULDOON T G; COPLAND J A; MAHESH V B; MILL T M; BURZYNSKI S R
CORPORATE SOURCE: MED COLL GA, AUGUSTA, GA 30912, USA
SOURCE: (1986) pp. 607. UICC (UNION INTERNATIONALE CONTRE LE CANCER, INTERNATIONAL UNION AGAINST CANCER). 14TH INTERNATIONAL CANCER CONGRESS, BUDAPEST, HUNGARY, AUG. 21-27, 1986. ABSTRACTS, LECTURES, SYMPOSIA AND FREE COMMUNICATIONS, VOLS. 1, 2, 3, LATE ABSTRACTS, AND REGISTER. XVI+479P.(VOL. 1); XVI+298P.(VOL. 2); XVI+531P.(VOL. 3); 15P.(LATE ABSTRACTS); 40P.(REGISTER) S. KARGER AG: BASEL, SWITZERLAND; NEW YORK, N.Y., USA; AKADEMIAI KIADO: BUDAPEST, HUNGARY. PAPER.
ISBN: 3-8055-4434-0(KARGER), 963-05-4422-9(VOL. 1), 963-05-4423-7(VOL. 2), 963-05-4424-5(VOL. 3), 963-05-4439-3(LATE ABSTRACTS), 963-05-4425-3(REGISTER), 963-05-4421-0(GENERAL).
DOCUMENT TYPE: Book
Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 31 Jan 1987
Last Updated on STN: 31 Jan 1987
CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - General 10060
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Sterols and steroids 10067
Metabolism - Sterols and steroids 13008
Reproductive system - Pathology 16506
Pharmacology - General 22002
Pharmacology - Reproductive system and implantation studies 22028
Neoplasms - Biochemistry 24006
Neoplasms - Therapeutic agents and therapy 24008
In vitro cellular and subcellular studies 32600
INDEX TERMS: Major Concepts
Metabolism; Pharmacology; Reproductive System (Reproduction); Tumor Biology
INDEX TERMS: Miscellaneous Descriptors
ABSTRACT RAT 3 PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE ANTINEOPLASTIC-**DRUG** ESTROGEN METABOLISM BREAST CARCINOMA
ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
REGISTRY NUMBER: 91531-30-5 (ANTINEOPLASTON A10)

77658-84-5 (3-PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE)

L131 ANSWER 43 OF 44 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1986:399248 BIOSIS
DOCUMENT NUMBER: PREV198682084728; BA82:84728
TITLE: 3 PHENYLACETYLAMINO-2 6-PIPERIDINEDIONE A NATURALLY-OCCURRING PEPTIDE ANALOGUE WITH APPARENT ANTINEOPLASTIC ACTIVITY MAY BIND TO DNA.
AUTHOR(S): LEHNER A F [Reprint author]; BURZYNSKI S R; HENDRY L B
CORPORATE SOURCE: DEP MED, MED COLLEGE GEORGIA, AUGUSTA, GEORGIA 30912, USA
SOURCE: Drugs under Experimental and Clinical Research, (1986) Vol. 12, No. SUPPL. 1, pp. 57-72.
CODEN: DECRDP. ISSN: 0378-6501.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 4 Oct 1986
Last Updated on STN: 4 Oct 1986

ABSTRACT:Antineoplaston A10 (3-phenylacetylamino-2,6-piperidinedione), a peptide analgoue originally isolated from human urine and serum, appears to have antineoplastic activity. In view of the close resemblance of the structure of A10 to that of DNA intercalative anticancer drugs, spectroscopic studies were performed to determine whether its mode of action could similarly involve binding to DNA. DNA thermal denaturation studies demonstrated that A10 was capable of interacting with DNA in a specific manner; of the synthetic polynucleotides employed in this study, A10 had the greatest effect on poly(dA-Dg) · poly(dC-dT), suggesting some sequence preference. However, ultraviolet and fluorescence spectroscopic studies demonstrated that interactions of A10 with DNA were weak in comparison to those of classical intercalating agents. Mass spectroscopic studies suggested that A10 did not react covalently with DNA. The weak yet apparently specific interaction of A10 with DNA indicates that the mode of action of A10 may involve binding to chromatin, facilitated by nuclear protein receptors analogous to steroid and thyroid hormones.

CONCEPT CODE:
Genetics - Animal 03506
Clinical biochemistry - General methods and applications 10006
Biochemistry methods - Nucleic acids, purines and pyrimidines 10052
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Sterols and steroids 10067
Biophysics - Methods and techniques 10504
Biophysics - Membrane phenomena 10508
Blood - Blood and lymph studies 15002
Blood - Other body fluids 15010
Urinary system - Physiology and biochemistry 15504
Endocrine - Adrenals 17004
Endocrine - Thyroid 17018
Pharmacology - Drug metabolism and metabolic stimulators 22003
Neoplasms - Therapeutic agents and therapy 24008

INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Genetics; Pharmacology; Tumor Biology

INDEX TERMS: Miscellaneous Descriptors
ANTINEOPLASTON A-10 ANTINEOPLASTIC-**DRUG** PHARMACODYNAMICS

REGISTRY NUMBER: **77658-84-5** (3-PHENYLACETYLAMINO-2,6-PIPERIDINEDIONE)
91531-30-5 (ANTINEOPLASTON A-10)

L131 ANSWER 44 OF 44 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1984:715 TOXCENTER
COPYRIGHT: Copyright 2005 ASHP
DOCUMENT NUMBER: 22-01046
TITLE: Animal **toxicology** studies on oral formulation of antineoplaston A10
AUTHOR(S): Burzynski, S. R.; Mohabbat, M. O.; Burzynski, B.
CORPORATE SOURCE: Burzynski Res. Inst., 12707 Trinity Dr., Stafford, TX 77477
SOURCE: Drugs Under Experimental and Clinical Research (Switzerland), (1984) Vol. 10, pp. 113-118. 8 Refs.
CODEN: DECRDR. ISSN: 0378-6501.
DOCUMENT TYPE: Journal
FILE SEGMENT: IPA
OTHER SOURCE: IPA 84:2496
LANGUAGE: English
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20011116
ABSTRACT:
The **toxic effects** of antineoplaston A10 (3-phenylacetylamino-2,6-piperidimedione) were evaluated in mice. No ***toxic*** **effects** were associated with the daily chronic oral administration of the drug.
D. L. Thompson
SECTION CODE: 5 Investigational Drugs
CLASSIFICATION CODE: 10:00 Antineoplastic agents
SUPPLEMENTARY TERMS: Miscellaneous Descriptors
Antineoplaston A10; **toxicity**; lack, mice
Antineoplastic agents; antineoplaston A10; lacks **toxicity**, mice
Toxicity; antineoplaston A10; lack, mice
REGISTRY NUMBER: **77658-84-5** (Antineoplaston A10)
CHEMICAL NAME: Antineoplaston A10 (3-Phenylacetylamino-2,6-piperidinedione)

```
=> fil capl; d que 140
FILE 'CAPLUS' ENTERED AT 12:28:12 ON 07 JAN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 7 Jan 2005  VOL 142 ISS 3
FILE LAST UPDATED: 6 Jan 2005  (20050106/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE


L7             1 SEA FILE=REGISTRY ABB=ON  RIBOFLAVIN/CN
L8             2 SEA FILE=REGISTRY ABB=ON  ARGININE/CN
L9             2 SEA FILE=REGISTRY ABB=ON  ORNITHINE/CN
L10            1 SEA FILE=REGISTRY ABB=ON  CITRULLINE/CN
L11            2 SEA FILE=REGISTRY ABB=ON  ALANINE/CN
L12            1 SEA FILE=REGISTRY ABB=ON  GLYCINE/CN
L13            2 SEA FILE=REGISTRY ABB=ON  SERINE/CN
L14            1 SEA FILE=REGISTRY ABB=ON  TAURINE/CN
L15            2 SEA FILE=REGISTRY ABB=ON  THREONINE/CN
L16            2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L17        17690 SEA FILE=CAPLUS ABB=ON  L7
L18        44310 SEA FILE=CAPLUS ABB=ON  (L8 OR L9 OR L10)
L19       109418 SEA FILE=CAPLUS ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR
                 L16)
L25          977 SEA FILE=CAPLUS ABB=ON  L17(L)(PAC OR DMA OR THU OR PKT)/RL
L26         2177 SEA FILE=CAPLUS ABB=ON  L18(L)(PAC OR DMA OR THU OR PKT)/RL
L27         2610 SEA FILE=CAPLUS ABB=ON  L19(L)(PAC OR DMA OR THU OR PKT)/RL
L28           73 SEA FILE=CAPLUS ABB=ON  L25 AND L26 AND L27
L30         6618 SEA FILE=CAPLUS ABB=ON  CHEMOTHERAPY/CT
L31       110024 SEA FILE=CAPLUS ABB=ON  ANTITUMOR AGENTS/CT
L34       281794 SEA FILE=CAPLUS ABB=ON  TOXICITY/OBI OR CYTOTOXICITY/OBI
L35        77032 SEA FILE=CAPLUS ABB=ON  NEOPLASM INHIBITORS/CT
L39        16534 SEA FILE=CAPLUS ABB=ON  (SIDE/OBI OR ADVERSE/OBI OR TOXIC/OBI)(
                 2A)EFFECT#/OBI
L40            2 SEA FILE=CAPLUS ABB=ON  (L30 OR L31 OR L35) AND (L34 OR L39)
                 AND L28


=> => s l40 not l127
L132           1 L40 NOT L127


=> => fil uspatf; d que l54
FILE 'USPATFULL' ENTERED AT 12:30:22 ON 07 JAN 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)
```

previously printed

```
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 6 Jan 2005 (20050106/PD)
FILE LAST UPDATED: 6 Jan 2005 (20050106/ED)
HIGHEST GRANTED PATENT NUMBER: US6839903
HIGHEST APPLICATION PUBLICATION NUMBER: US2005005336
CA INDEXING IS CURRENT THROUGH 6 Jan 2005 (20050106/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 6 Jan 2005 (20050106/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2004
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2004

>>>  USPAT2 is now available.  USPATFULL contains full text of the     <<<
>>>  original, i.e., the earliest published granted patents or         <<<
>>>  applications.  USPAT2 contains full text of the latest US         <<<
>>>  publications, starting in 2001, for the inventions covered in     <<<
>>>  USPATFULL.  A USPATFULL record contains not only the original     <<<
>>>  published document but also a list of any subsequent              <<<
>>>  publications.  The publication number, patent kind code, and      <<<
>>>  publication date for all the US publications for an invention     <<<
>>>  are displayed in the PI (Patent Information) field of USPATFULL   <<<
>>>  records and may be searched in standard search fields, e.g., /PN, <<<
>>>  /PK, etc.                                                         <<<

>>>  USPATFULL and USPAT2 can be accessed and searched together        <<<
>>>  through the new cluster USPATALL.  Type FILE USPATALL to          <<<
>>>  enter this cluster.                                               <<<
>>>                                                                    <<<
>>>  Use USPATALL when searching terms such as patent assignees,       <<<
>>>  classifications, or claims, that may potentially change from      <<<
>>>  the earliest to the latest publication.                           <<<

This file contains CAS Registry Numbers for easy and accurate
substance identification.


L7            1 SEA FILE=REGISTRY ABB=ON  RIBOFLAVIN/CN
L8            2 SEA FILE=REGISTRY ABB=ON  ARGININE/CN
L9            2 SEA FILE=REGISTRY ABB=ON  ORNITHINE/CN
L10           1 SEA FILE=REGISTRY ABB=ON  CITRULLINE/CN
L11           2 SEA FILE=REGISTRY ABB=ON  ALANINE/CN
L12           1 SEA FILE=REGISTRY ABB=ON  GLYCINE/CN
L13           2 SEA FILE=REGISTRY ABB=ON  SERINE/CN
L14           1 SEA FILE=REGISTRY ABB=ON  TAURINE/CN
L15           2 SEA FILE=REGISTRY ABB=ON  THREONINE/CN
L16           2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L47         994 SEA FILE=USPATFULL ABB=ON  L7
L48        2497 SEA FILE=USPATFULL ABB=ON  (L8 OR L9 OR L10)
L49        6430 SEA FILE=USPATFULL ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR
                L16)
L51         115 SEA FILE=USPATFULL ABB=ON  L47 AND L48 AND L49
L52         538 SEA FILE=USPATFULL ABB=ON  ((SIDE OR ADVERSE OR TOXIC)(2A)EFFEC
                T#)/IT
L53        4703 SEA FILE=USPATFULL ABB=ON  (TOXICITY OR CYTOTOXICITY)/IT
L54           6 SEA FILE=USPATFULL ABB=ON  L51 AND (L52 OR L53)


=> s l54 not l128

L133          5 L54 NOT L128

=> fil biosis; d que l79; d que l80

FILE 'BIOSIS' ENTERED AT 12:30:24 ON 07 JAN 2005
Copyright (c) 2005 The Thomson Corporation.
```

previously printed

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 5 January 2005 (20050105/ED)

FILE RELOADED: 19 October 2003.

```
L7             1 SEA FILE=REGISTRY ABB=ON  RIBOFLAVIN/CN
L8             2 SEA FILE=REGISTRY ABB=ON  ARGININE/CN
L9             2 SEA FILE=REGISTRY ABB=ON  ORNITHINE/CN
L10            1 SEA FILE=REGISTRY ABB=ON  CITRULLINE/CN
L11            2 SEA FILE=REGISTRY ABB=ON  ALANINE/CN
L12            1 SEA FILE=REGISTRY ABB=ON  GLYCINE/CN
L13            2 SEA FILE=REGISTRY ABB=ON  SERINE/CN
L14            1 SEA FILE=REGISTRY ABB=ON  TAURINE/CN
L15            2 SEA FILE=REGISTRY ABB=ON  THREONINE/CN
L16            2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L59         6228 SEA FILE=BIOSIS ABB=ON  L7
L60         6928 SEA FILE=BIOSIS ABB=ON  RIBOFLAVIN OR VITAMIN(W)(B2 OR B 2)
L61        24253 SEA FILE=BIOSIS ABB=ON  (L8 OR L9 OR L10)
L62        89621 SEA FILE=BIOSIS ABB=ON  ARGININE OR ORNITHINE OR CITRULLINE
L63        52629 SEA FILE=BIOSIS ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR
                 L16)
L64       199616 SEA FILE=BIOSIS ABB=ON  ALANINE OR GLYCINE OR SERINE OR
                 TAURINE OR THREONINE OR VALINE
L74           24 SEA FILE=BIOSIS ABB=ON  (L59 OR L60) AND (L61 OR L62) AND (L63
                 OR L64)
L76       290189 SEA FILE=BIOSIS ABB=ON  MEDIUM
L78         4324 SEA FILE=BIOSIS ABB=ON  MOLASSES
L79            2 SEA FILE=BIOSIS ABB=ON  L74 AND L76 AND L78
```

```
L7             1 SEA FILE=REGISTRY ABB=ON  RIBOFLAVIN/CN
L8             2 SEA FILE=REGISTRY ABB=ON  ARGININE/CN
L9             2 SEA FILE=REGISTRY ABB=ON  ORNITHINE/CN
L10            1 SEA FILE=REGISTRY ABB=ON  CITRULLINE/CN
L11            2 SEA FILE=REGISTRY ABB=ON  ALANINE/CN
L12            1 SEA FILE=REGISTRY ABB=ON  GLYCINE/CN
L13            2 SEA FILE=REGISTRY ABB=ON  SERINE/CN
L14            1 SEA FILE=REGISTRY ABB=ON  TAURINE/CN
L15            2 SEA FILE=REGISTRY ABB=ON  THREONINE/CN
L16            2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L59         6228 SEA FILE=BIOSIS ABB=ON  L7
L60         6928 SEA FILE=BIOSIS ABB=ON  RIBOFLAVIN OR VITAMIN(W)(B2 OR B 2)
L61        24253 SEA FILE=BIOSIS ABB=ON  (L8 OR L9 OR L10)
L62        89621 SEA FILE=BIOSIS ABB=ON  ARGININE OR ORNITHINE OR CITRULLINE
L63        52629 SEA FILE=BIOSIS ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR
                 L16)
L64       199616 SEA FILE=BIOSIS ABB=ON  ALANINE OR GLYCINE OR SERINE OR
                 TAURINE OR THREONINE OR VALINE
L66       361737 SEA FILE=BIOSIS ABB=ON  (TOXICITY OR CYTOTOXICITY)
L67       179201 SEA FILE=BIOSIS ABB=ON  ((SIDE OR ADVERSE OR TOXIC)(2A)EFFECT#)

L74           24 SEA FILE=BIOSIS ABB=ON  (L59 OR L60) AND (L61 OR L62) AND (L63
                 OR L64)
L80            0 SEA FILE=BIOSIS ABB=ON  L74 AND (L66 OR L67)
```

```
=> s l79 not l129

L134             2 L79 NOT L129
```

previously printed

```
=> fil ipa; d que l95

FILE 'IPA' ENTERED AT 12:30:25 ON 07 JAN 2005
COPYRIGHT (C) 2005 American Society of Hospital Pharmacists (ASHP)

FILE COVERS 1970 TO 4 JAN 2005 (20050104/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.


L7             1 SEA FILE=REGISTRY ABB=ON  RIBOFLAVIN/CN
L8             2 SEA FILE=REGISTRY ABB=ON  ARGININE/CN
L9             2 SEA FILE=REGISTRY ABB=ON  ORNITHINE/CN
L10            1 SEA FILE=REGISTRY ABB=ON  CITRULLINE/CN
L11            2 SEA FILE=REGISTRY ABB=ON  ALANINE/CN
L12            1 SEA FILE=REGISTRY ABB=ON  GLYCINE/CN
L13            2 SEA FILE=REGISTRY ABB=ON  SERINE/CN
L14            1 SEA FILE=REGISTRY ABB=ON  TAURINE/CN
L15            2 SEA FILE=REGISTRY ABB=ON  THREONINE/CN
L16            2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L82          223 SEA FILE=IPA ABB=ON  L7
L83          291 SEA FILE=IPA ABB=ON  RIBOFLAVIN OR VITAMIN(W)(B2 OR B 2)
L84          149 SEA FILE=IPA ABB=ON  (L8 OR L9 OR L10)
L85          588 SEA FILE=IPA ABB=ON  ARGININE OR ORNITHINE OR CITRULLINE
L86          212 SEA FILE=IPA ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR L16)
L87         1126 SEA FILE=IPA ABB=ON  ALANINE OR GLYCINE OR SERINE OR TAURINE
                 OR THREONINE OR VALINE
L95              1 SEA FILE=IPA ABB=ON (L82 OR L83) AND (L84 OR L85) AND (L86 OR
                 L87)


=> s l95 not l92

L135             1 L95 NOT L92
```

previously printed

```
=> fil toxcenter; d que l111

FILE 'TOXCENTER' ENTERED AT 12:30:27 ON 07 JAN 2005
COPYRIGHT (C) 2005 ACS


FILE COVERS 1907 TO 4 Jan 2005 (20050104/ED)

This file contains CAS Registry Numbers for easy and accurate substance
identification.

TOXCENTER has been enhanced with new files segments and search fields.
See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH 2005 vocabulary.  See http://www.nlm.nih.gov/mesh/ and
http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a
description of changes.


L7             1 SEA FILE=REGISTRY ABB=ON  RIBOFLAVIN/CN
L8             2 SEA FILE=REGISTRY ABB=ON  ARGININE/CN
```

```
L9            2 SEA FILE=REGISTRY ABB=ON  ORNITHINE/CN
L10           1 SEA FILE=REGISTRY ABB=ON  CITRULLINE/CN
L11           2 SEA FILE=REGISTRY ABB=ON  ALANINE/CN
L12           1 SEA FILE=REGISTRY ABB=ON  GLYCINE/CN
L13           2 SEA FILE=REGISTRY ABB=ON  SERINE/CN
L14           1 SEA FILE=REGISTRY ABB=ON  TAURINE/CN
L15           2 SEA FILE=REGISTRY ABB=ON  THREONINE/CN
L16           2 SEA FILE=REGISTRY ABB=ON  VALINE/CN
L97        3283 SEA FILE=TOXCENTER ABB=ON  L7
L98        4052 SEA FILE=TOXCENTER ABB=ON  RIBOFLAVIN OR VITAMIN(W)(B2 OR B 2)

L99       14429 SEA FILE=TOXCENTER ABB=ON  (L8 OR L9 OR L10)
L100      44499 SEA FILE=TOXCENTER ABB=ON  ARGININE OR ORNITHINE OR CITRULLINE

L101      31577 SEA FILE=TOXCENTER ABB=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR
                L16)
L102     108239 SEA FILE=TOXCENTER ABB=ON  ALANINE OR GLYCINE OR SERINE OR
                TAURINE OR THREONINE OR VALINE
L104     790545 SEA FILE=TOXCENTER ABB=ON  ((SIDE OR ADVERSE OR TOXIC)(2A)EFFEC
                T#)
L105     148989 SEA FILE=TOXCENTER ABB=ON  CHEMOTHERAP?
L107    2313689 SEA FILE=TOXCENTER ABB=ON  TOXIC? OR CYTOTOXIC?
L109         94 SEA FILE=TOXCENTER ABB=ON  (L97 OR L98) AND (L99 OR L100) AND
                (L101 OR L102)
L110         24 SEA FILE=TOXCENTER ABB=ON  L109 AND ((L104 OR L105) OR L107)
L111         10 SEA FILE=TOXCENTER ABB=ON  L110 AND (AMINO OR COMPOSITION OR
                SUPPLEMENT)/TI

=> s l111 not l130

L136          9 L111 NOT L130

=> fil wpids; d que l123

FILE 'WPIDS' ENTERED AT 12:30:28 ON 07 JAN 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED:          3 JAN 2005      <20050103/UP>
MOST RECENT DERWENT UPDATE:     200501        <200501/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
    PLEASE VISIT:
 http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
    http://thomsonderwent.com/coverage/latestupdates/           <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
    GUIDES, PLEASE VISIT:
    http://thomsonderwent.com/support/userguides/               <<<

>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
    DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
    FIRST VIEW - FILE WPIFV.
    FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv  <<<

>>> NEW DISPLAY FORMAT HITSTR ADDED ALLOWING DISPLAY OF
    HIT STRUCTURES WITHIN THE BIBLIOGRAPHIC DOCUMENT  <<<

>>> SMILES and ISOSMILES strings are no longer available as
```

previously printed

Derwent Chemistry Resource display fields <<<

>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
FOR DETAILS. <<<

```
L112        2012 SEA FILE=WPIDS ABB=ON  RIBOFLAVIN OR RIBO FLAVIN OR VITAMIN(W)(
                 B2 OR B 2)
L113        7677 SEA FILE=WPIDS ABB=ON  ARGININE OR ORNITHINE OR CITRULLINE
L114       24049 SEA FILE=WPIDS ABB=ON  ALANINE OR GLYCINE OR SERINE OR TAURINE
                 OR THREONINE OR VALINE
L115      100288 SEA FILE=WPIDS ABB=ON  CYTOTOXIC? OR TOXIC?
L116        8563 SEA FILE=WPIDS ABB=ON  CHEMOTHERAP?
L117       12051 SEA FILE=WPIDS ABB=ON  ANTINEOPLAS? OR ANTICANCER? OR ANTI(W)(C
                 ANCER? OR NEOPLAS?)
L118       44447 SEA FILE=WPIDS ABB=ON  ((SIDE OR ADVERSE OR TOXIC)(2A)EFFECT#)

L119          85 SEA FILE=WPIDS ABB=ON  L112 AND L113 AND L114
L120          71 SEA FILE=WPIDS ABB=ON  B/DC AND L119
L123          16 SEA FILE=WPIDS ABB=ON  L120 AND (L115 OR L116 OR L117 OR L118)
```

B/DC = Derwent code - pharmaceuticals

=> => dup rem l132, l133, l135, l134, l136, l123
FILE 'CAPLUS' ENTERED AT 12:31:22 ON 07 JAN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 12:31:22 ON 07 JAN 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'IPA' ENTERED AT 12:31:22 ON 07 JAN 2005
COPYRIGHT (C) 2005 American Society of Hospital Pharmacists (ASHP)

FILE 'BIOSIS' ENTERED AT 12:31:22 ON 07 JAN 2005
Copyright (c) 2005 The Thomson Corporation.

FILE 'TOXCENTER' ENTERED AT 12:31:22 ON 07 JAN 2005
COPYRIGHT (C) 2005 ACS

FILE 'WPIDS' ENTERED AT 12:31:22 ON 07 JAN 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION
PROCESSING COMPLETED FOR L132
PROCESSING COMPLETED FOR L133
PROCESSING COMPLETED FOR L135
PROCESSING COMPLETED FOR L134
PROCESSING COMPLETED FOR L136
PROCESSING COMPLETED FOR L123
L137 33 DUP REM L132 L133 L135 L134 L136 L123 (1 DUPLICATE REMOVED)
ANSWER '1' FROM FILE CAPLUS
ANSWERS '2-6' FROM FILE USPATFULL
ANSWER '7' FROM FILE IPA
ANSWERS '8-9' FROM FILE BIOSIS
ANSWERS '10-18' FROM FILE TOXCENTER
ANSWERS '19-33' FROM FILE WPIDS

=> d ibib ed ab hitind 1; d ibib ab hitrn 2-6; d iall 7-33; fil hom

L137 ANSWER 1 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:608584 CAPLUS
DOCUMENT NUMBER: 133:187987
TITLE: Methods using pyrimidine-based nucleosides for treatment of mitochondrial disorders
INVENTOR(S): Naviaux, Robert K.
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050043	A1	20000831	WO 2000-US4663	20000223
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2362925	AA	20000831	CA 2000-2362925	20000223
NZ 513926	A	20010928	NZ 2000-513926	20000223
BR 2000008447	A	20020115	BR 2000-8447	20000223
EP 1171137	A1	20020116	EP 2000-910321	20000223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002537340	T2	20021105	JP 2000-600654	20000223
AU 776437	B2	20040909	AU 2000-32434	20000223
US 2004224920	A1	20041111	US 2004-868717	20040614

PRIORITY APPLN. INFO.:	US 1999-121588P	P	19990223
	WO 2000-US4663	W	20000223
	US 2001-889251	A1	20011101

OTHER SOURCE(S): MARPAT 133:187987
ED Entered STN: 01 Sep 2000
AB Methods are provided for the treatment of mitochondrial disorders. The methods include the administration of a pyrimidine-based nucleoside, e.g. triacetyluridine. Also provided are methods of reducing or eliminating symptoms associated with mitochondrial disorders. Mitochondrial disorders particularly appropriate for treatment include those attributable to a deficiency of one or more pyrimidines.
IC ICM A61K031-70
CC 1-12 (Pharmacology)
IT **Toxicity**
(drug; pyrimidine-based nucleoside for treatment of mitochondrial disorder)
IT **Antitumor agents**
(leukemia, thrombocytopenia and leukemia syndrome; pyrimidine-based nucleoside for treatment of mitochondrial disorder)
IT **Antitumor agents**
(spleen lymphoma; pyrimidine-based nucleoside for treatment of mitochondrial disorder)
IT 51-35-4D, L-Hydroxyproline, pyrimidine nucleoside derivs. 52-90-4D, L-Cysteine, pyrimidine nucleoside derivs., biological studies **56-40-6D**, Glycine, pyrimidine nucleoside derivs., biological studies **56-41-7D**, L-Alanine, pyrimidine nucleoside derivs., biological studies **56-45-1D**, L-Serine, pyrimidine nucleoside derivs., biological studies 56-84-8D, L-Aspartic acid, pyrimidine

nucleoside derivs., biological studies 56-86-0D, L-Glutamic acid, pyrimidine nucleoside derivs., biological studies 56-87-1D, L-Lysine, pyrimidine nucleoside derivs., biological studies 56-89-3D, L-Cystine, pyrimidine nucleoside derivs., biological studies 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Vitamin B1, biological studies 59-67-6, Niacin, biological studies 60-18-4D, L-Tyrosine, pyrimidine nucleoside derivs., biological studies 61-90-5D, L-Leucine, pyrimidine nucleoside derivs., biological studies 68-19-9, Vitamin B12 **70-26-8D**, L-Ornithine, pyrimidine nucleoside derivs. 71-00-1D, L-Histidine, pyrimidine nucleoside derivs., biological studies **72-18-4D**, L-Valine, pyrimidine nucleoside derivs., biological studies **72-19-5D**, L-Threonine, pyrimidine nucleoside derivs., biological studies 73-32-5D, L-Isoleucine, pyrimidine nucleoside derivs., biological studies **74-79-3D**, L-Arginine, pyrimidine nucleoside derivs., biological studies 79-83-4, Pantothenic acid **83-88-5**, Vitamin B2, biological studies 147-85-3D, L-Proline, pyrimidine nucleoside derivs., biological studies 541-15-1D, L-Carnitine, pyrimidine nucleoside derivs. 4105-38-8 8059-24-3, Vitamin B6 52009-14-0, Calcium pyruvate
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(pyrimidine-based nucleoside for treatment of mitochondrial disorder)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L137 ANSWER 2 OF 33 USPATFULL on STN
ACCESSION NUMBER: 2004:286752 USPATFULL
TITLE: Methods of treatment of mitochondrial disorders
INVENTOR(S): Naviaux, Robert K., San Diego, CA, UNITED STATES
PATENT ASSIGNEE(S): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004224920	A1	20041111
APPLICATION INFO.:	US 2004-868717	A1	20040614 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2001-889251, filed on 1 Nov 2001, PENDING A 371 of International Ser. No. WO 2000-US4663, filed on 23 Feb 2000, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-121588P	19990223 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Lisa A. Haile, J.D., Ph.D., GRAY CARY WARE & FREIDENRICH LLP, Suite 1100, 4365 Executive Drive, San Diego, CA, 92121-2133
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: CLM-01-27
LINE COUNT: 716
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB In accordance with the present invention, there are provided methods for the treatment of mitochondrial disorders. Invention methods include the administration of a pyrimidine-based nucleoside such as triacetyluridine, or the like. Also provided are methods of reducing or eliminating symptoms associated with mitochondrial disorders. Mitochondrial disorders particularly appropriate for treatment include

those attributable to a deficiency of one or more pyrimidines.

IT **56-40-6D**, Glycine, pyrimidine nucleoside derivs., biological studies **56-41-7D**, L-Alanine, pyrimidine nucleoside derivs., biological studies **56-45-1D**, L-Serine, pyrimidine nucleoside derivs., biological studies **70-26-8D**, L-Ornithine, pyrimidine nucleoside derivs. **72-18-4D**, L-Valine, pyrimidine nucleoside derivs., biological studies **72-19-5D**, L-Threonine, pyrimidine nucleoside derivs., biological studies **74-79-3D**, L-Arginine, pyrimidine nucleoside derivs., biological studies **83-88-5**, Vitamin B2, biological studies
(pyrimidine-based nucleoside for treatment of mitochondrial disorder)

L137 ANSWER 3 OF 33 USPATFULL on STN

ACCESSION NUMBER:	2004:50763 USPATFULL
TITLE:	System for exsanguinous metabolic support of an organ or tissue
INVENTOR(S):	Brasile, Lauren, Albany, NY, UNITED STATES
PATENT ASSIGNEE(S):	Breonics, Inc., Otisville, NY (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004038192	A1	20040226
APPLICATION INFO.:	US 2003-443452	A1	20030522 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-849618, filed on 4 May 2001, GRANTED, Pat. No. US 6582953
Continuation-in-part of Ser. No. US 2000-547843, filed on 12 Apr 2000, GRANTED, Pat. No. US 6642045

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-129257P	19990414 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	HESLIN ROTHENBERG FARLEY & MESITI PC, 5 COLUMBIA CIRCLE, ALBANY, NY, 12203
NUMBER OF CLAIMS:	10
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	2 Drawing Page(s)
LINE COUNT:	2256

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An exsanguinous metabolic support system for maintaining an organ or tissue at a near normal metabolic rate is disclosed that employs a warm perfusion solution capable of altering the production of nitric oxide (NO) in an organ or tissue and supporting the metabolism of the organ or tissue at normothermic temperatures. Perfusion with the solution of the invention, therefore, can be used to regulate nitric oxide production in situations where it is desirable to do so, for example, to prevent reperfusion injury. The system also monitors parameters of the circulating perfusion solution, such as pH, temperature, osmolarity, flow rate, vascular pressure and partial pressure of respiratory gases, and nitric oxide (NO) concentration and regulates them to insure that the organ is maintained under near-physiologic conditions. Use of the system for long-term maintenance of organs for transplantation, for resuscitation and repair of organs having sustained warm ischemic damage, to treat cardiovascular disorders, to prevent reperfusion injury, as a pharmaceutical delivery system and prognosticator of posttransplantation organ function is also disclosed.

IT **56-40-6**, Glycine, biological studies **74-79-3**, L-Arginine, biological studies **80-68-2**, Threonine **83-88-5**, Riboflavin, biological studies **302-72-7**, Alanine **302-84-1**, Serine **516-06-3**, Valine
(system for exsanguinous metabolic support of an organ or tissue)

L137 ANSWER 4 OF 33 USPATFULL on STN
ACCESSION NUMBER: 2002:119882 USPATFULL
TITLE: Dosage forms useful for modifying conditions and functions associated with hearing loss and/or tinnitus
INVENTOR(S): Pearson, Don C., Lakewood, WA, UNITED STATES
Richardson, Kenneth T., Anchorage, AK, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002061870	A1	20020523
	US 6524619	B2	20030225
APPLICATION INFO.:	US 2001-765974	A1	20010119 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-178487P	20000127 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: M. Henry Heines, TOWNSEND and TOWNSEND and CREW LLP, Two Embarcadero Center, 8th Floor, San Francisco, CA, 94111-3834
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
LINE COUNT: 2057
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention defines interdependent biofactors and biomolecules, and clinically useful formulations that are comprised of them. The active agents are demonstrated to be complementary in their physiologic functions especially as these relate to the quenching of free radicals and to the support of endothelial physiology, the reduction of hyperinsulinemia and improvements in vascular health. The active components of the invention are selected for inclusion in precise combinations specifically because they improve these various conditions and physiological functions, and by so doing reduce a variety of risks associated with hearing loss and tinnitus. The resulting enhancement of general systemic vascular health, improvement in local VIII.sup.th nerve vascular health, modulation of conditions surrounding blood fluid dynamics, the consequences of hyperinsulinemia, and improvements in free radical defenses, all reduce the potential for cochlear hair cell death and VIII.sup.th nerve atrophy, and the hearing loss and possible deafness that accompany them.
IT **74-79-3**, L-Arginine, biological studies **83-88-5**, Riboflavin, biological studies **107-35-7**, Taurine **107-35-7D**, Taurine, reaction with magnesium
(dosage forms containing vitamin-mineral combinations for modifying conditions and functions associated with hearing loss and tinnitus)

L137 ANSWER 5 OF 33 USPATFULL on STN
ACCESSION NUMBER: 2002:22153 USPATFULL
TITLE: Organ chamber for exsanguinous metabolic support system
INVENTOR(S): Brasile, Lauren, Albany, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002012988	A1	20020131
	US 6582953	B2	20030624
APPLICATION INFO.:	US 2001-849618	A1	20010504 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-547843, filed on 12 Apr 2000, PENDING		

	NUMBER	DATE

PRIORITY INFORMATION:	WO 2000-US9894	20000413
	US 1999-129257P	19990414 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HESLIN ROTHENBERG FARLEY & MESITI PC, 5 COLUMBIA CIRCLE, ALBANY, NY, 12203	
NUMBER OF CLAIMS:	40	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Page(s)	
LINE COUNT:	2230	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An exsanguinous metabolic support system for maintaining an organ or tissue at a near normal metabolic rate is disclosed. The system employs an organ chamber comprising a container and a support member adapted to inhibit movement of the organ within the container during perfusion and/or transport. The organ chamber additionally comprises a conduit for receiving venous outflow of perfusion solution and preventing its contact with the outer surfaces of the organ. A conduit for receiving organ product enables the collection of organ product from a functional organ during perfusion. Use of the organ chamber supports de novo or continued synthesis of constituents necessary for long-term maintenance of organs for transplantation, for resuscitation and active repair of organs that have sustained warm ischemic damage, and for transportation of isolated organs is also disclosed.

IT **56-40-6**, Glycine, biological studies **74-79-3**, L-Arginine, biological studies **80-68-2**, Threonine **83-88-5**, Riboflavin, biological studies **302-72-7**, Alanine **302-84-1**, Serine **516-06-3**, Valine
(system for exsanguinous metabolic support of an organ or tissue)

L137 ANSWER 6 OF 33 USPATFULL on STN

ACCESSION NUMBER:	96:55677 USPATFULL	
TITLE:	Human liver epithelial cell line and culture media therefor	
INVENTOR(S):	Cole, Katharine H., Dayton, MD, United States Lechner, John F., Bethesda, MD, United States Reddel, Roger, Camperdown, Australia Harris, Curtis C., Bethesda, MD, United States Pfeifer, Andrea M., Pyrbaum, Germany, Federal Republic of	
PATENT ASSIGNEE(S):	The United States of America as represented by the Secretary of the Department of Health and Human Services, Washington, DC, United States (U.S. government)	

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5529920		19960625
APPLICATION INFO.:	US 1992-879165		19920501 (7)
DISCLAIMER DATE:	20120303		
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1992-844873, filed on 3 Mar 1992, now patented, Pat. No. US 5342777 which is a continuation of Ser. No. US 1989-377967, filed on 11 Jul 1989, now abandoned which is a continuation of Ser. No. US 1988-284331, filed on 14 Dec 1988, now abandoned And a continuation of Ser. No. US 1988-284368, filed on 14 Dec 1988, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Chambers, Jasemine C.		
ASSISTANT EXAMINER:	Stanton, Brian R.		

LEGAL REPRESENTATIVE: Birch, Stewart, Kolasch & Birch
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 1381
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to long term multiplication and permanent establishment of a cell line of human liver epithelial cells(hepatocytes). The human liver epithelial cell line is capable of mitotically proliferating and continuously growing in vitro under suitable environmental conditions in suitable culture media. A method of producing an immortalized human liver epithelial cell line is also disclosed. The invention also relates to serum-free cell medium developed to support long term multiplication and permanent establishment of a cell line of human liver epithelial cells. The medium may contain an effective cell growth promoting amount of calcium ions; an effective cell growth promoting amount of glucose; an effective amount of insulin to aid cells in glucose uptake; an effective cell growth promoting amount of hydrocortisone; an effective amount of epidermal growth factor to bind epidermal growth factor receptors on cells; an effective amount of transferrin to increase DNA synthesis in cells; an effective amount of cholera toxin to increase DNA synthesis in cells; an effective amount of triiodothyronine to increase DNA synthesis in cells; and an effective growth promoting amount of mammalian hormones and mitogenic factors, including lipoprotein, cholesterol, phospholipids and fatty acids.

IT **56-40-6**, Glycine, biological studies **56-41-7**, Alanine, biological studies **56-45-1**, Serine, biological studies **70-26-8**, Ornithine **72-18-4**, Valine, biological studies **72-19-5**, Threonine, biological studies **83-88-5**, Riboflavin, biological studies
(human liver epithelial cell line and culture media for it)

L137 ANSWER 7 OF 33 IPA COPYRIGHT 2005 ASHP on STN

ACCESSION NUMBER: 1999:11730 IPA
DOCUMENT NUMBER: 36-12963
TITLE: Stability of TPN solution with or without light shield package
AUTHOR: Park, K. J.; Park, H. J.; Lee, S. W.; Park, K. H.; Cho, N. C.
CORPORATE SOURCE: Department of Pharmacy, Seoul National University Hospital, 28, Yongon-Dong, Chongno-Gu, Seoul, 110-744, Korea
SOURCE: ASHP Midyear Clinical Meeting, (Dec 1999) Vol. 34, pp. INTL-80.
DOCUMENT TYPE: Abstract
LANGUAGE: English
ABSTRACT:

We have studied parenteral nutrition solution stability with or without the light shield package. We determined concentrations of each amino acid and vitamins for three days storage at the cool conditions of 2-8DGC. The determined amino acids are isoleucine, leucine, lysine acetate, methionine, phenylalanine, **threonine**, tryptophan, **valine**, histidine, ***arginine*** , proline, **alanine**, glutamic acid, **glycine**, tyrosine, and **serine**. The determined vitamins are ascorbic acid, nicotinamide, pyridoxine, thiamine, and **riboflavin**. We compared TPN solution component stability in plastic bags and glass bottles. The results are as follows: The concentrations of amino acids are all stable in plastic bag or glass bottle for three days. The determined vitamin concentrations are

generally stable but concentrations of ascorbic acid are not stable in glass bottles and plastic bags. The results are glass with light shield (92.2%-89.8%-85.6%), plastic with light shield (93.3%-90.5%-87.4%), glass without light shield(85.7%-90.6%-52.4%) plastic without light shield (79.%-47.6%-30.4%).
SECTION: 10 Drug Stability
INDEX TERM: ASHP meeting abstracts; parenteral nutrition stability
INDEX TERM: Nutrition; parenteral; stability
INDEX TERM: Stability; parenteral nutrition; containers
INDEX TERM: Incompatibilities; parenteral nutrition; storage
INDEX TERM: Containers; parenteral nutrition; incompatibilities
INDEX TERM: Storage; parenteral nutrition; stability
INDEX TERM: Photodecomposition; parenteral nutrition; stability

L137 ANSWER 8 OF 33 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1984:173169 BIOSIS
DOCUMENT NUMBER: PREV198477006153; BA77:6153
TITLE: NUTRITIONAL FACTORS AFFECTING GROWTH AND PRODUCTION OF ANTI MICROBIAL SUBSTANCES BY STREPTOCOCCUS-LACTIS-SSP-DIACETYLACTIS S-1-67-C.
AUTHOR(S): REDDY N S [Reprint author]; RANGANATHAN B
CORPORATE SOURCE: DEP ANIM PRODUCTS TECHNOL, FAC AGRIC, OKAYAMA UNIV, OKAYAMA SHI-700, JPN
SOURCE: Journal of Food Protection, (1983) Vol. 46, No. 6, pp. 514-517.
CODEN: JFPRDR. ISSN: 0362-028X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ABSTRACT:The effect of nutritional factors on the growth and production of antimicrobial substances (AS) by S. lactis ssp. diacetylactis S1-67/C was studied. Among 9 media tested, yeast extract dextrose broth supported good growth and maximum production of AS. Addition of beef extract and yeast extract at 1.0 and 0.6% levels, respectively, increased growth and production of AS. Of 10 carbohydrates examined, maximum production of AS was achieved with 1% glucose followed by fructose, 4% **molasses**, lactose, sucrose, galactose, mannitol, maltose and 2% **molasses.** Xylose inhibited production of AS, although it stimulated growth of the organism. Peptone, tryptone and tryptose (each at the 1.5% level) significantly stimulated production of AS. Other N sources, including soytone, casein hydrolysate and proteose peptone, retarded production of inhibitory substances. Among the amino acids, L-leucine, DL-methionine and L-glutamic acid were most essential for growth and production of AS, while L-lysine, L-proline, DL-**serine** , DL-asparatic acid, L-**arginine**-HCl and DL-tryptophan were stimulatory. Other amino acids such as DL-**ornithine**, L-cysteine-HCl and DL-**citrulline** slightly stimulated AS production. In the presence of cynocobalmin, niacin, folic acid, calcium pantothenate and ***riboflavin*** , S. lactis ssp. diacetylactis S1-67/C produced maximum amounts of inhibitory substances. Omission of individual mineral salts from the basal **medium** did not affect production of AS by the organism.
CONCEPT CODE: Comparative biochemistry 10010
Biochemistry methods - General 10050
Biochemistry studies - General 10060
Biochemistry studies - Vitamins 10063
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Carbohydrates 10068
Biochemistry studies - Minerals 10069
Metabolism - General metabolism and metabolic pathways 13002
Metabolism - Energy and respiratory metabolism 13003

Metabolism - Carbohydrates 13004
Nutrition - General studies, nutritional status and methods 13202
Nutrition - Minerals 13206
Nutrition - Water-soluble vitamins 13210
Nutrition - Carbohydrates 13220
Nutrition - Proteins, peptides and amino acids 13224
Physiology and biochemistry of bacteria 31000
Microbiological apparatus, methods and media 32000
Food microbiology - Food and beverage spoilage and contamination 39002
Food microbiology - Food and beverage fermentation 39003
Disinfection, disinfectants and sterilization - 39500
Plant physiology - Chemical constituents 51522

INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Foods; Metabolism; Nutrition; Physiology

INDEX TERMS: Miscellaneous Descriptors
BEEF EXTRACT YEAST EXTRACT CARBOHYDRATES AMINO-ACIDS VITAMINS

ORGANISM: Classifier
Gram-Positive Cocci 07700
Super Taxa
Eubacteria; Bacteria; Microorganisms
Taxa Notes
Bacteria, Eubacteria, Microorganisms

ORGANISM: Classifier
Fungi 15000
Super Taxa
Plantae
Taxa Notes
Fungi, Microorganisms, Nonvascular Plants, Plants

ORGANISM: Classifier
Bovidae 85715
Super Taxa
Artiodactyla; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Artiodactyls, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Vertebrates

L137 ANSWER 9 OF 33 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1980:182428 BIOSIS
DOCUMENT NUMBER: PREV198069057424; BA69:57424
TITLE: PRODUCTION OF GENTAMICINS BY MICROMONOSPORA-PURPUREA.
AUTHOR(S): ABOU-ZEID A A [Reprint author]; SALEM H M; EISSA A E-W I
CORPORATE SOURCE: NATL RES CENT, EL-TAHRIR-ST, DOKKI, CAIRO, EGYPT
SOURCE: Zentralblatt fuer Bakteriologie Parasitenkunde Infektionskrankheiten und Hygiene Zweite Naturwissenschaftliche Abteilung Mikrobiologie der Landwirtschaft der Technologie und des Umweltschutzes, (1978) Vol. 133, No. 3, pp. 261-275.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ABSTRACT:The natural **medium** contained the following ingredients (grams per liter):glucose 8.0, or black strap **molasses** (treated with 0.2-0.3 g/l EDTA) 12.0, fodder yeast (50.0% total nitrogen) 2.0, or fodder yeast (40.0% total nitrogen) 6.0, or yeast extract 8.0, or tryptone 8.0, and CaCO3 1.0. Treated black strap **molasses** with EDTA and fodder yeast proved to be effective in the fermentative production of gentamicins. The most suitable chelating agent was EDTA in the form of disodium for the treatment of

Komombo **molasses** in a concentration of 0.2-0.3 g/l, while potassium ferrocyanide and methylene blue had depressing effects on the production of gentamicins. The most effective C source, present in Egyptian black strap ***molasses*** , was glucose. Addition of glucose to the **medium** was preferable at the beginning of the fermentation process. Trace elements present in **molasses** were very essential for the microbial growth and biosynthesis of gentamicins as proved when **molasses** ash was added to the natural **medium.** Organic N sources were more suitable than inorganic N sources for the production of gentamicins by M. purpurea. The microorganism utilized the synthetic **medium**, but the antibiotic yields were less than those produced in the natural **medium.** The synthetic **medium** exhibited stimulatory effects of certain amino acids, organic acids, vitamins and purine and pyrimidine bases on the fermentative production of gentamicins. Therefore, the ingredients increasing yields of gentamicins were mainly phenylalanine, isoleucine, lysine, methionine, leucine, **arginine**, **glycine**, β-***alanine*** , cystine, tryptophan, malic acid, maleic acid, cobalamin, folic acid, **riboflavin**, vitamin B1, vitamin B6, biotin, nicotinamide, uracil, adenine, guanine and adenosine. Trace elements (Co, Mo, Fe, Cu, Zn and Mn) exhibited their important role on the biosynthesis and production of gentamicins by M. purpurea.

CONCEPT CODE:
Biochemistry studies - General 10060
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Vitamins 10063
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Carbohydrates 10068
Biochemistry studies - Minerals 10069
Metabolism - Carbohydrates 13004
Pharmacology - Drug metabolism and metabolic stimulators 22003
Physiology and biochemistry of bacteria 31000
Microbiological apparatus, methods and media 32000
Chemotherapy - General, methods and metabolism 38502
Food microbiology - Antibiotics, biologics and other agents 39004
Plant physiology - Chemical constituents 51522
Agronomy - Sugar crops 52510

INDEX TERMS:
Major Concepts
Metabolism; Pharmacology; Physiology

INDEX TERMS:
Miscellaneous Descriptors
YEAST EXTRACT GLUCOSE BLACKSTRAP **MOLASSES** TRYPTONE ORGANIC ACID VITAMIN PYRIMIDINE TRACE ELEMENTS

ORGANISM:
Classifier
Actinoplanetes 08830
Super Taxa
Actinomycetes and Related Organisms; Eubacteria; Bacteria; Microorganisms
Taxa Notes
Bacteria, Eubacteria, Microorganisms

ORGANISM:
Classifier
Fungi 15000
Super Taxa
Plantae
Taxa Notes
Fungi, Microorganisms, Nonvascular Plants, Plants

ORGANISM:
Classifier
Angiospermae 25200
Super Taxa
Spermatophyta; Plantae
Taxa Notes

Angiosperms, Plants, Spermatophytes, Vascular Plants
REGISTRY NUMBER: 1403-66-3D (GENTAMICINS)
50-99-7Q (GLUCOSE)
58367-01-4Q (GLUCOSE)
289-95-2 (PYRIMIDINE)
8052-35-5 (BLACKSTRAP **MOLASSES**)

L137 ANSWER 10 OF 33 TOXCENTER COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2000:186295 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA13313176534F
TITLE: Dietetic **supplement** from human placenta
AUTHOR(S): Miyares Cao, Carlos Manuel
CORPORATE SOURCE: ASSIGNEE: Centro De Histoterapia Placentaria
PATENT INFORMATION: WO 2000049892 A2 31 Aug 2000
SOURCE: (2000) PCT Int. Appl., 15 pp.
CODEN: PIXXD2.
COUNTRY: CUBA
DOCUMENT TYPE: Patent
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 2000:608532
LANGUAGE: Spanish
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20020326
ABSTRACT:
The present invention relates to the field of nutrition, more particularly, to a dietetic supplement obtained from human placenta, which contributes protein and mineral elements to the diet. The tech. aim of the present invention is to provide a new option in the nutritional support to amino acid and mineral salts-deficient patients. The dietetic supplement disclosed has a high nutritional value and shows absolutely no harmful or inconvenient **side** ***effects*** , thus allowing for its use in both genders and all ages and even during pregnancy. Said material, which is obtained as a residue in the production of medicaments from the human placenta, still contains a considerable amount of highly digestible proteins, vitamins or provitamins and mineral salts that are easily assimilated and is therefore useful as a nutritional supplement in various clin. or surgical conditions characterized by provoking deficient states in individuals suffering from said conditions.
CLASSIFICATION CODE: 17-6
SUPPLEMENTARY TERMS: Miscellaneous Descriptors
dietetic food supplement human placenta
REGISTRY NUMBER: **56-40-6 (Glycine)**
56-41-7 (L-**Alanine**)
56-45-1 (L-**Serine**)
56-84-8 (L-Aspartic acid)
56-86-0 (L-Glutamic acid)
56-87-1 (L-Lysine)
57-83-0 (Progesterone)
60-18-4 (L-Tyrosine)
61-90-5 (L-Leucine)
63-68-3 (L-Methionine)
63-91-2 (L-Phenylalanine)
64-17-5 (Ethanol)
65-85-0 (Benzoic acid)
67-64-1 (Acetone)
71-00-1 (L-Histidine)
72-18-4 (L-**Valine**)
72-19-5 (L-**Threonine**)
74-79-3 (L-**Arginine**)
83-88-5 (Vitamin B2)
7439-89-6 (Iron)
7440-50-8 (Copper)

7440-66-6 (Zinc)
7440-70-2 (Calcium)
7723-14-0 (Phosphorus)

L137 ANSWER 11 OF 33 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:280623 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA13801008355H
TITLE: **Composition** and method for normalizing impaired or deteriorating neurological function
AUTHOR(S): McCleary, Edward Larry
PATENT INFORMATION: US 2002182196 A1 5 Dec 2002
SOURCE: (2002) U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO.
COUNTRY: UNITED STATES
DOCUMENT TYPE: Patent
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 2002:928020
LANGUAGE: English
ENTRY DATE: Entered STN: 20021210
Last Updated on STN: 20030624

ABSTRACT:
A nutritional supplement composition for normalizing impaired or deteriorating neurol. function in humans is composed of: at least one agent which promotes synthesis of ATP and/or creatine phosphate in the body, at least one antioxidant for scavenging free radicals in at least one pathway in the body; at least one agent for normalizing or maintaining membrane function and structure in the body; at least one agent for normalizing or maintaining normal neurotransmitter function in the body; at least one agent for down-regulating cortisol action; and at least one agent for suppressing activation of apoptotic pathways in the body. The composition may further contain one or more of: at least one agent for suppressing inflammation in the body; at least one agent for normalizing or maintaining vascular wall function and structure in the body; at least one agent for normalizing or maintaining function of nerve growth factors and/or neurotropic factors in the body; at least one agent for suppressing ***toxic*** metal ionic **effects**; at least one agent for normalizing or maintaining Me metabolism in the body; at least one agent for normalizing or maintaining metabolism of insulin and glucose in the body; and at least one agent for up-regulating activity of heat shock proteins in the body. A method for normalizing impaired neurol. function in humans modulating nutrient partitioning in a human involves administering the aforementioned composition to the human, preferably on a daily basis, for a therapeutically effective period of time. Preferably, the method further involves having the human follow a stress reduction program, and/or a cognitive retraining program, and/or a dietary program designed to maximize insulin and glucose metabolism

CLASSIFICATION CODE: 63-6
SUPPLEMENTARY TERMS: Miscellaneous Descriptors
neurol function disorder compn nutraceutical
REGISTRY NUMBER: 50-69-1 (Ribose)
50-81-7 (Vitamin c)
53-43-0 (Dehydroepiandrosterone)
53-84-9 (Nad)
57-00-1 (Creatine)
58-85-5 (Biotin)
59-30-3 (Folic acid)
62-49-7 (Choline)
65-23-6 (Pyridoxine)
68-19-9 (Vitamin b12)
70-51-9 (DESFERRIOXAMINE)
74-79-3 (L-**Arginine**)
79-83-4 (Pantothenic acid)
83-88-5 (**Riboflavin**)

98-92-0 (Vitamin b)
107-35-7 (Taurine)
107-43-7 (Betaine)
303-98-0 (Coenzyme q10)
305-84-0 (Carnosine)
501-36-0 (Resveratrol)
502-65-8 (Lycopene)
506-26-3 (γ-Linolenic acid)
987-78-0 (Cytidine 5'-diphosphocholine)
1200-22-2 (α-Lipoic acid)
1406-18-4 (Vitamin e)
3040-38-8 (Acetyl-L-carnitine)
7439-95-4 (Magnesium)
7440-21-3 (Silicon)
7440-66-6 (Zinc)
7782-49-2 (Selenium)
8059-24-3 (Vitamin b6)
12001-76-2 (Vitamin b)
25167-62-8 (Docosahexaenoic acid)
42971-09-5 (Vinpocetine)
58186-27-9 (Idebenone)
102518-79-6 (Huperzine A)
174882-69-0 (Pycnogenol)
56-65-5 (ATP)
67-07-2 (Creatine phosphate)
REGISTRY NUMBER: 29908-03-0

L137 ANSWER 12 OF 33 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:207222 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA13218236168F
TITLE: Proximate **composition** and mineral content of two edible species of Cnidoscolus (tree spinach)
AUTHOR(S): Kuti, J. O.; Kuti, H. O.
CORPORATE SOURCE: College of Agriculture & Human Sciences, Horticultural Crops Research, Texas A&M University-Kingsville, Kingsville, TX, 78363, USA.
SOURCE: Plant Foods for Human Nutrition (Dordrecht, Netherlands), (1999) Vol. 53, No. 4, pp. 275-283.
CODEN: PFHNE8. ISSN: 0921-9668.
COUNTRY: UNITED STATES
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1999:731679
LANGUAGE: English
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20020416

ABSTRACT:
Proximate composition and mineral content of raw and cooked leaves of two edible tree spinach species (Cnidoscolus chayamansa and C. aconitifolius), known locally as 'chaya', were determined and compared with that of a traditional green vegetable, spinach (Spinacia oleracea). Results of the study indicated that the edible leafy parts of the two chaya species contained significantly ($p < 0.05$) greater amts. of crude protein, crude fiber, Ca, K, Fe, ascorbic acid and β-carotene than the spinach leaf. However, no significant ($p > 0.05$) differences were found in nutritional composition and mineral content between the chaya species, except minor differences in the relative composition of fatty acids, protein and amino acids. Cooking of chaya leaves slightly reduced nutritional composition of both chaya species. Cooking is essential prior to consumption to inactivate the **toxic** hydrocyanic glycosides present in chaya leaves. Based on the results of this study, the edible chaya leaves may be good dietary sources of minerals (Ca, K and Fe) and vitamins (ascorbic acid and

β-carotene).
CLASSIFICATION CODE: 17-10
SUPPLEMENTARY TERMS: Miscellaneous Descriptors
Cnidoscolus proximate compn mineral nutrient species; cooking nutrient chaya leaf
REGISTRY NUMBER: **56-41-7 (Alanine)**
56-85-9 (Glutamine)
56-86-0 (Glutamic acid)
56-87-1 (Lysine)
57-10-3 (Palmitic acid)
57-11-4 (Stearic acid)
60-33-3 (Linoleic acid)
61-90-5 (Leucine)
63-68-3 (Methionine)
63-91-2 (Phenylalanine)
71-00-1 (Histidine)
72-18-4 (Valine)
72-19-5 (Threonine)
73-32-5 (Isoleucine)
74-79-3 (Arginine)
112-80-1 (Oleic acid)
463-40-1 (Linolenic acid)
59-43-8 (Thiamin)
83-88-5 (Riboflavin)
7440-23-5 (Sodium)
7439-95-4 (Magnesium)
50-81-7 (Ascorbic acid)
7235-40-7 (β-Carotene)
7439-89-6 (Iron)
7440-09-7 (Potassium)
7440-70-2 (Calcium)

L137 ANSWER 13 OF 33 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:140598 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA131060728955
TITLE: Chemical **composition** and biological evaluation of mahua flowers
AUTHOR(S): Jayasree, B.; Harishankar, N.; Rukmini, C.
CORPORATE SOURCE: National Institute of Nutrition, Indian Council of Medical Research, Hyderabad, 500007, India.
SOURCE: Journal of the Oil Technologists' Association of India (Mumbai, India), (1998) Vol. 30, No. 4, pp. 170-172.
CODEN: JOTIAC. ISSN: 0970-4094.
COUNTRY: INDIA
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1999:258372
LANGUAGE: English
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20020416
ABSTRACT:
Mahua (Madhuca latifolia, Sapotaceae) flowers were defatted and desugared and analyzed for their nutrient composition and the protein quality evaluated in weanling rats. The flowers are a good source of sugars (68%), calcium, phosphorus and protein (6.67%). Lysine content of the flower protein is higher than any cereal protein and also a good source of sulfur containing amino acids. Its PER and NPU were comparable to those of control group. It did not show any ***toxic*** symptoms. Mahua flowers may form a good dietary source for tribals.
CLASSIFICATION CODE: 17-10
SUPPLEMENTARY TERMS: Miscellaneous Descriptors

mahua flower nutrient protein quality
REGISTRY NUMBER: 57-10-3 (Palmitic acid)
57-11-4 (Octadecanoic acid)
60-33-3 (9,12-Octadecadienoic acid (9Z,12Z)-)
112-80-1 (9-Octadecenoic acid (9Z)-)
112-85-6 (Behenic acid)
124-07-2 (Octanoic acid)
142-62-1 (Caproic acid)
143-07-7 (Lauric acid)
334-48-5 (Capric acid)
373-49-9 (Palmitoleic acid)
463-40-1 (Linolenic acid)
544-63-8 (Myristic acid)
544-64-9 (Myristoleic acid)
557-59-5 (Lignoceric acid)
22032-47-9 (Lauroleic acid)
50-81-7 (L-Ascorbic acid)
56-40-6 (**Glycine**)
56-41-7 (L-**Alanine**)
56-45-1 (L-**Serine**)
56-84-8 (L-Aspartic acid)
56-86-0 (L-Glutamic acid)
56-87-1 (L-Lysine)
56-89-3 (L-Cystine)
59-43-8 (Thiamine)
59-67-6 (Niacin)
60-18-4 (L-Tyrosine)
61-90-5 (L-Leucine)
63-68-3 (L-Methionine)
63-91-2 (L-Phenylalanine)
71-00-1 (L-Histidine)
72-18-4 (L-**Valine**)
72-19-5 (L-**Threonine**)
73-32-5 (L-Isoleucine)
74-79-3 (L-**Arginine**)
83-88-5 (**Riboflavin**)
147-85-3 (L-Proline)
7440-70-2 (Calcium)
7723-14-0 (Phosphorus)

L137 ANSWER 14 OF 33 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:128554 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA12822269798G
TITLE: Study on the chemical change of **amino** acid and vitamin of rapeseed during germination
AUTHOR(S): Kim, In-Sook; Han, Sung-Hee; Han, Kwang-Wan
CORPORATE SOURCE: Dep. Food and Nutrition, Wonkwang Univ., Cheonbuk, 570-749, S. Korea.
SOURCE: Han'guk Sikp'um Yongyang Kwahak Hoechi, (1997) Vol. 26, No. 6, pp. 1058-1062.
CODEN: HSYHFB. ISSN: 1226-3311.
COUNTRY: KOREA, REPUBLIC OF
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1998:217893
LANGUAGE: Korean
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20020605
ABSTRACT:
The objective of this was to investigate the tech. feasibility of producing ***toxicant*** -free by germination. To this end, rapeseed (Brassica napus

L.) was germinated at 25°C for 120 h, and the chemical compns. of amino acids and vitamins were determined every 24 h during germination. Before germination, rapeseed contained 5.4 g/16 g N of glutamic acid and high percentage of the other amino acids in order of Asp > Leu > His > Pro > Arg > Lys > Gly > Ser > Ala > Val. The amino acids were gradually decreased until 96 h during germination had tendency to show a slight increase in 120 h. Vitamin B1, B2 and C contents in rapeseed before germination were 0.11, 0.21 and 3.72 mg% resp., and the vitamin E was 423 μg/g. The vitamin C greatly increased in 72 h during germination, while the vitamin B group was drastically decreased in 72 h. Thus, germination process is very effective to the removal of ***toxicants*** in rapeseed.

CLASSIFICATION CODE: 17-10

SUPPLEMENTARY TERMS: Miscellaneous Descriptors
rapeseed germination amino acid vitamin change

REGISTRY NUMBER:
50-81-7 (Vitamin C)
52-90-4 (L-Cysteine)
56-40-6 (Glycine)
56-41-7 (L-Alanine)
56-45-1 (L-Serine)
56-84-8 (L-Aspartic acid)
56-86-0 (L-Glutamic acid)
56-87-1 (L-Lysine)
59-02-9 (α-Tocopherol)
59-43-8 (Vitamin B1)
60-18-4 (L-Tyrosine)
61-90-5 (L-Leucine)
63-68-3 (L-Methionine)
63-91-2 (L-Phenylalanine)
71-00-1 (L-Histidine)
72-18-4 (L-Valine)
72-19-5 (L-Threonine)
73-22-3 (L-Tryptophan)
73-32-5 (L-Isoleucine)
74-79-3 (L-Arginine)
83-88-5 (Vitamin B2)
147-85-3 (L-Proline)
1406-18-4 (Vitamin E)
7616-22-0 (γ-Tocopherol)

L137 ANSWER 15 OF 33 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:150746 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA11902014946A
TITLE: Bioaccumulation of **toxicants**, element and nutrient **composition**, and soft tissue histology of zebra mussels (Dreissena polymorpha) from New York State waters
AUTHOR(S): Secor, Carol L.; Mills, Edward L.; Harshbarger, John; Kuntz, H. Thomas; Gutenmann, Walter H.; Lisk, Donald J.
CORPORATE SOURCE: Cornell Biol. Field Stn., Bridgeport, NY, 13030, USA.
SOURCE: Chemosphere, (1993) Vol. 26, No. 8, pp. 1559-75.
CODEN: CMSHAF. ISSN: 0045-6535.
COUNTRY: UNITED STATES
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1993:414946
LANGUAGE: English
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20020917

ABSTRACT:
Zebra mussels (Dreissena polymorpha) were collected from 3 rivers and 3 lakes in New York State and analyzed for **toxic** and nutrient elements, amino

acids, and vitamins. The concentration of Cd and Se in soft tissues was generally high. Ca comprised 40% by weight of the shell. Polychlorinated biphenyls were markedly higher in soft tissues of zebra mussels from the Hudson River than the other waters. Mussel soft tissues from only 2 waters showed detectable levels of p,p'-DDE. Significant histol. lesions or infectious agents were not observed in soft tissues.
CLASSIFICATION CODE: 61-2
SUPPLEMENTARY TERMS: Miscellaneous Descriptors
Dreissena polymorpha **toxic** compd
bioaccumulation; river water pollution Dreissena **toxic** bioaccumulation; lake water pollution Dreissena **toxic** bioaccumulation
REGISTRY NUMBER: **56-40-6 (Glycine)**
56-41-7 (Alanine)
56-45-1 (Serine)
56-84-8 (Aspartic acid)
56-86-0 (Glutamic acid)
56-87-1 (Lysine)
56-89-3 (Cystine)
59-43-8 (Vitamin b1)
59-67-6 (Niacin)
60-18-4 (Tyrosine)
61-90-5 (Leucine)
63-68-3 (Methionine)
63-91-2 (Phenylalanine)
71-00-1 (Histidine)
72-18-4 (Valine)
72-19-5 (Threonine)
73-32-5 (Isoleucine)
74-79-3 (Arginine)
83-88-5 (Vitamin b2)
147-85-3 (Proline)
7439-89-6 (Iron)
7439-92-1 (Lead)
7439-95-4 (Magnesium)
7439-96-5 (Manganese)
7439-97-6 (Mercury)
7439-98-7 (Molybdenum)
7440-02-0 (Nickel)
7440-09-7 (Potassium)
7440-23-5 (Sodium)
7440-42-8 (Boron)
7440-43-9 (Cadmium)
7440-47-3 (Chromium)
7440-50-8 (Copper)
7440-62-2 (Vanadium)
7440-66-6 (Zinc)
7440-70-2 (Calcium)
7704-34-9 (Sulfur)
7723-14-0 (Phosphorus)
7727-37-9 (Nitrogen)
7782-49-2 (Selenium)
11097-69-1 (Aroclor 1254)
11103-57-4 (Vitamin a)
12672-29-6 (Aroclor 1248)
REGISTRY NUMBER: 72-55-9

L137 ANSWER 16 OF 33 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1952:2946 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA04617049681M
TITLE: Effect of B vitamins and **amino** acids on the rate

of multiplication of Paramecium caudatum
AUTHOR(S): Kreitmaier, Georg
CORPORATE SOURCE: Zool. Inst. Munich, Germany.
SOURCE: Zeitschrift fuer Vitamin-, Hormon- und Fermentforschung, (1952) Vol. 4, pp. 542-54.
CODEN: ZVHFAW. ISSN: 0373-0220.
COUNTRY: GERMANY, FEDERAL REPUBLIC OF
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1952:49681
LANGUAGE: German
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20030902

ABSTRACT:
The effect of adding these supplements, singly and in combination, to the basal Knop medium was studied: thiamine, **riboflavin**, pyridoxine, nicotinamide, folic acid, d-biotin, p-aminobenzoic acid, pantothenic acid, vitamin B12, inositol, choline, **arginine**, asparagine, β-***alanine*** , cysteine, glutamic acid, histidine, and glutathione. Natural materials (casein, yeast extract, wheat germ, mammalian liver and heart exts., etc.) were used for comparison. The rate of multiplication is accelerated by optimal levels of these supplements (usually 0.1-10 γ/ml.), while higher levels usually are **toxic.**
CLASSIFICATION CODE: 11I
REGISTRY NUMBER: 150-13-0 (Benzoic acid, p-amino-)
68-19-9 (Vitamin, B12)
56-86-0 (Glutamic acid)
59-30-3 (Folic acid)
59-43-8 (Vitamin, B1)
70-18-8 (Glutathione)
71-00-1 (Histidine)
83-88-5 (Vitamin, B2)
8059-24-3 (Vitamin, B6)
58-85-5 (Biotin)
62-49-7 (Choline)
74-79-3 (Arginine)
87-89-8 (Inositol)
107-95-9 (β- **Alanine**)
52-90-4 (Cysteine)
70-47-3 (Asparagine)
98-92-0 (Nicotinamide)
79-83-4 (Pantothenic acid)

L137 ANSWER 17 OF 33 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1954:3886 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA04808025941M
TITLE: **Amino** acids and growth factors in chemically defined medium for Drosophila
AUTHOR(S): Hinton, T.; Noyes, D. T.; Ellis, J.
SOURCE: Physiological Zoology, (1951) Vol. 24, pp. 335-53.
CODEN: PHZOA9. ISSN: 0031-935X.
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1954:25941
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20040316

ABSTRACT:
Drosophila does not utilize D-tryptophan, while high concns. of the L-form are ***toxic*** ; high concns. of L-isoleucine and L-**serine** slightly inhibit growth, while D-**serine** is extremely **toxic.** The ***arginine*** requirement of Drosophila can be met partly by

citrulline. **Glycine** is essential for optimal growth and also exerts a detoxifying effect on other essential amino acids. Biotin, which is spared by **citrulline** in the absence of **arginine**, can be tolerated in high concentration; it cannot be replaced by lecithin. High concns. of pyridoxine inhibited development while vitamin B12 slightly increased the percent of larvae pupating. Protogen had no effect on development, while vitamin B12 improved pupation but inhibited development, both only slightly. Inositol, p-aminobenzoic acid, and various yeast fractions had no effect on development. The following medium, completely defined except for the agar base, allows almost normal development (in mg./ml.): **alanine** 1.085, ***arginine*** 0.794, aspartic acid 1.221, cystine 0.480, glutamic acid 4.418, **glycine** 1.745, histidine 0.484, hydroxyproline 0.384, isoleucine 1.260, leucine 2.345, lysine 1.337, methionine 0.339, phenylalanine 1.008, proline 1.682, **threonine** 0.758, tryptophan 1.745, tyrosine 1.240, **valine** 1.335, sucrose 7.5, cholesterol 0.1, ergosterol 1.0, ribonucleic acid 1.0, inosine 0.25, thymine 0.004, biotin 0.00002, vitamin B12 0.00004, Ca pantothenate 0.006, choline chloride 0.020, pteroylglutamic acid 0.006, pyridoxine 0.030, riboflavine 0.0024, thiamine 0.0015, and nicotinamide 0.010. Tatum's salt mixture was also included.

CLASSIFICATION CODE: 11I

REGISTRY NUMBER:
68-19-9 (Vitamin, B12)
56-45-1 (Serine)
73-22-3 (Tryptophan)
73-32-5 (Isoleucine)
8059-24-3 (Vitamin, B6)
372-75-8 (Citrulline)
51-35-4 (Proline, hydroxy-)
56-40-6 (Glycine)
56-41-7 (Alanine)
56-84-8 (Aspartic acid)
56-86-0 (Glutamic acid)
56-87-1 (Lysine)
56-89-3 (Cystine)
57-50-1 (Sucrose)
57-87-4 (Ergosterol)
57-88-5 (Cholesterol)
58-85-5 (Biotin)
59-30-3 (Folic acid)
59-43-8 (Vitamin, B1)
60-18-4 (Tyrosine)
61-90-5 (Leucine)
62-49-7 (Choline)
63-68-3 (Methionine)
63-91-2 (**Alanine**, phenyl-)
65-71-4 (Thymine)
71-00-1 (Histidine)
72-18-4 (Valine)
72-19-5 (Threonine)
74-79-3 (Arginine)
83-88-5 (Vitamin, B2)
86-04-4 (Inosine, diphosphate)
98-92-0 (Nicotinamide)
137-08-6 (Pantothenic acid, calcium salt)
147-85-3 (Proline)

L137 ANSWER 18 OF 33 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:293113 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
DOCUMENT NUMBER: CA03814025518X
TITLE: **Amino** acid mixtures effective parenterally for long-continued plasma protein production. Casein digests compared

AUTHOR(S): Madden, S. C.; Woods, R. R.; Shull, F. W.; Whipple, G. H.
SOURCE: Journal of Experimental Medicine, (1944) Vol. 79, pp. 607-24.
CODEN: JEMEAV. ISSN: 0022-1007.
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1944:25518
ENTRY DATE: Entered STN: 20011218
Last Updated on STN: 20030624

ABSTRACT:
When blood plasma proteins are depleted by bleeding with return of red cells suspended in saline (plasmapheresis), it is possible to bring dogs to a steady state of hypoproteinemia and a constant level of plasma protein production if the diet N intake is controlled and limited. Such dogs are outwardly normal but have a lowered resistance to infection and to certain intoxications. The 10 growth-essential amino acids of Rose plus **glycine** will maintain N balance and produce as much new plasma protein as will good diet proteins. This good utilization is demonstrated over periods of several months when the amino acids are given either orally or parenterally. There is no evidence of ***toxicity*** in general nor to unnatural forms of these synthetic amino acids in particular. Given parenterally appropriate mixts. of these amino acids are well tolerated even upon rapid injection. The min. daily requirements for a 10-kg. dog can be given intravenously in 10 min. without reaction. Subcutaneously, a 10% solution can be given rapidly without reaction. Among various mixts. tested, the following approximates a min. for a 10-kg. dog: dl-**threonine** 0.7, dl-**valine** 1.5, l(-)-leucine 1.5, dl-isoleucine 1.4, dl-lysine-HCl 0.5, dl-phenylalanine 1, l-(-)-tryptophan 0.4, dl-methionine 0.6, l(+)-histidine-HCl 0.5, l(+)-**arginine**-HCl 0.5 and ***glycine*** 1 g. The presence of **glycine** improves tolerance to rapid intravenous injection but excess **glycine** does not improve utilization of the mixture Over long periods, this mixture appears sub-optimal in quantity; doubled, it is more ample. Of 2 casein digests tested, the one prepared by enzymic hydrolysis provided good N retention and fairly good plasma protein production but was much less tolerable upon intravenous injection than certain mixts. of pure amino acids. The one prepared by acid hydrolysis and tryptophan fortification afforded bare N equilibrium and produced virtually no plasma protein. Skin lesions observed after 10-20 weeks of synthetic diet probably reflect a deficiency of some member or members of the **vitamin** ***B2*** group. A persistent slight weight loss in the face of a strongly pos. N balance may accompany this deficiency.
CLASSIFICATION CODE: 11H

L137 ANSWER 19 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-267967 [25] WPIDS
CROSS REFERENCE: 2003-102288 [09]
DOC. NO. CPI: C2004-104361
TITLE: Metabolic uncoupling therapy involves formulating a combination of agent of metabolic uncoupling therapy that limits the accumulation of high-energy electrons potentially available to the electron transport chain.
DERWENT CLASS: **B05**
INVENTOR(S): MCCLEARY, E L
PATENT ASSIGNEE(S): (MCCL-I) MCCLEARY E L
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 2004043013	A1	20040304	(200425)*		21	A61K031-7076

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004043013	A1 CIP of	US 2000-749584	20001228
		US 2003-462958	20030617

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2004043013	A1 CIP of	US 6579866

PRIORITY APPLN. INFO: US 2003-462958 20030617; US 2000-749584 20001228

INT. PATENT CLASSIF.:

MAIN: A61K031-7076

SECONDARY: A61K031-195; A61K031-198; A61K031-525; A61K031-685

BASIC ABSTRACT:

US2004043013 A UPAB: 20040418

NOVELTY - Metabolic uncoupling therapy (MUT) involves analyzing specific physiologic process, including delineating the metabolic pathways related to reductive stress; identifying several MUT agents that modulate the metabolic pathways by influencing electron flux; and formulating combination of MUT agent that limits the accumulation of high-energy electrons potentially available to the electron transport chain.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a composition comprising at least two (preferably at least three, especially at least five) small electrophilic biomolecules (a), at least one oxaloacetate precursor (b), at least two vitamin B and its structurally related entity (c) (preferably at least three, especially at least five); and at least one electron cycling agent (d). (a) Is TMG (trimethylglycine), choline, phosphatidyl choline, SAMe (S-adenosyl methionine), carnitine, ALC (acetyl L-carnitine), propionyl carnitine, myoinositol, sphingomyelin, glycerylphosphorylcholine or acetylcholine. (b) Is pyruvate, aspartate, **glycine** or **serine.** (c) Is folate, **riboflavin**, B1, B3, niacinamide, nicotinamide, polynicotinate, B6, B12, biotin, pantothenic acid, **riboflavin** or related chemical species. (d) Is coenzyme Q10, lipoic acid or acetoacetate.

ACTIVITY - Antidiabetic; Antilipemic; Antiinflammatory; Vasotropic; Cardiant; Cerebroprotective; Anorectic; Nootropic; Tranquilizer; Muscular-Gen.; Dermatological; Neuroprotective; Gastrointestinal-Gen.; Hepatotropic; Virucide. Test details are given, but no results are given.

MECHANISM OF ACTION - None given.

USE - For metabolite uncoupling therapy (claimed), which is useful for the prevention of a multitude of conditions and as a therapeutic modality under conditions of disease e.g. high blood pressure, diabetes, dyslipidemia, hyperlipidemia, hypercholesterolemia, insulin resistance, inflammation, vascular disease, heart disease, stroke, overweight, obesity, neuronal and/or cognitive dysfunction, dementia, attention and attention/hyperactivity disorder, mood disorder, muscular damage, muscular deterioration or soreness, athletic compromise, sarcopenia, glucose intolerance and other disorders of glucose metabolism, premature aging, skin deterioration and/or damage either associated with, or not associated with sun exposure, loss of muscle tone, frailty and bone loss, and aging. The composition is useful in food products e.g. milk or milk products, juices, shakes, salad dressing, gravies, sauces, nutritional bars, protein powders and any other palatable food products and in enhancement of athletic performance in greyhounds or racehorses, enhanced and prolonged fertility in breeding stock and health maintenance in household pets and as a brain performance-enhancing drink mix. For the treatment of neurodegenerative disorders e.g. multiple sclerosis and Alzheimer's disease, inflammatory gastrointestinal disorder and hepatic

steatosis/steatohepatitis.

ADVANTAGE - The combination of the MUT agents limits the accumulation of high-energy electrons potentially available to the electron transport chain. The MUT includes manipulation of flux of high-energy electrons through biochemical pathways; modulation of related cell processes and signaling systems, modulation of metabolic intermediates involved in the production of high energy electrons and modulation of nucleotides, nucleotide ratios and nucleotide cycling. The MUT minimizes **adverse side effects** that might occur through inappropriate usage of various compound and composition not in accordance with the combination of the MUT agents.

Dwg.0/0

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-B; B03-C; B03-D; B03-E; B03-G; B04-A08C2; B04-A10B; B04-B03A; B04-B04D2; B04-J03A; B05-A01A; B05-A01B; B05-A03A; B05-A03B; B05-B01M; B05-B01P; B07-H; B10-A06; B10-A09B; B10-A17; B10-A22; B10-B02; B10-C04B; B10-C04E; B11-C08E; B12-K04A; B14-C03; B14-D02A2; B14-E10; B14-E12; B14-F01B; B14-F02B; B14-F02F; B14-F06; B14-J01; B14-J05; B14-N01; B14-N12; B14-N16; B14-N17; B14-S01

L137 ANSWER 20 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-464569 [44] WPIDS
DOC. NO. CPI: C2004-173882
TITLE: Health food/pharmaceutical, useful for preventing e.g. diabetes, comprises zinc complex having ligand containing amino acids, picolinic acids, vitamins, maltols, carboxylic acids, oligopeptides or their derivatives, and zinc source.
DERWENT CLASS: **B05** D13
PATENT ASSIGNEE(S): (ARIT-I) ARITA J
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 2004175790	A	20040624	(200444)*		8	A61K031-315

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2004175790	A	JP 2003-374551	20031104

PRIORITY APPLN. INFO: JP 2002-327684 20021112
INT. PATENT CLASSIF.:
MAIN: A61K031-315
SECONDARY: A23L001-304; A61K031-19; A61K031-191; A61K031-192; A61K031-194; A61K031-198; A61K031-205; A61K031-351; A61K031-375; A61K031-401; A61K031-405; A61K031-4172; A61K031-4402; A61K031-455; A61K031-519; A61K031-525; A61K031-555; A61K038-00; A61P003-10; A61P043-00

BASIC ABSTRACT:

JP2004175790 A UPAB: 20040712

NOVELTY - A health food/pharmaceutical comprises zinc complex having ligand containing amino acids, picolinic acids, vitamins, maltols, carboxylic acids, oligopeptides or their derivatives complexed with zinc source.

ACTIVITY - Antidiabetic.

MECHANISM OF ACTION - Glucosidase-Inhibitor-Alpha.

(alpha)-glucosidase inhibiting effect of zinc complex (Zn(Gln)2) was performed by improving the method described in Japanese Patent No.2002316939. The (alpha)-glucosidase inhibiting effect was 5.4 micro M.

USE - The health food/pharmaceutical is useful for preventing life-style diseases e.g. diabetes and hyperglycemia.

ADVANTAGE - The health food/pharmaceutical having excellent (alpha)-glucosidase inhibiting effect can be administered safely for prolonged period. The health food effectively promotes carbohydrate metabolism without causing any **side effect.**

Dwg.0/7

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-B; B03-C; B03-F; B03-L; B04-C01; B05-A03A; B05-C07; B06-D01; B06-D09; B06-D17; B07-A03; B07-D03; B07-D04C; B07-D09; B07-D12; B07-F01; B10-A07; B10-A17; B10-A22; B10-B01B; B10-B02D; B10-B02E; B10-B02H; B10-B02J; B10-C02; B10-C03; B10-C04D; B10-C04E; B14-D07B; B14-E11; B14-F09; B14-S04; D03-H01T2

L137 ANSWER 21 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-456017 [43] WPIDS
DOC. NO. CPI: C2004-170976
TITLE: Foodstuff e.g. nutritional food with antioxidant effect for improving lifestyle disease e.g. diabetes, comprises ligand forming zinc source, organic compound containing basic amino acid for forming complex with zinc and vitamin.
DERWENT CLASS: **B05** D13
PATENT ASSIGNEE(S): (ARIT-I) ARITA J
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 2004166690	A	20040617	(200443)*		6	A23L001-304

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2004166690	A	JP 2003-363204	20031023

PRIORITY APPLN. INFO: JP 2002-319193 20021101
INT. PATENT CLASSIF.:
MAIN: A23L001-304
SECONDARY: A23L001-302; A61K033-30; A61P039-06
BASIC ABSTRACT:

JP2004166690 A UPAB: 20040709

NOVELTY - Foodstuff comprises a source of zinc which forms a ligand, an organic compound containing basic amino acid except histidine, which form a complex with zinc, and a vitamin or its derivatives.

ACTIVITY - Antidiabetic; Antiarteriosclerotic; Cytostatic; Dermatological.

MECHANISM OF ACTION - None given.

USE - Used as nutritional food, health food and health supplement having antioxidant effect, for improving lifestyle related disease e.g. diabetes, arteriosclerosis, cancer and aging caused by active oxygen and as antioxidant in another foodstuff, food additive, vitamins and/or

minerals.

In a test, the influence of zinc/vitamin C complex having antioxidant action with respect to acute renal failure by cisplatin involving active oxygen was evaluated. 7.5 mg/kg of cisplatin was administered intravenously to male Sprague Dawley rats. Urine and blood samples were collected after 4-18 days of administration. 100 mg/kg of zinc/vitamin C complex was dissolved in distilled water and administered orally to the rats, once daily. Cisplatin increased blood urea nitrogen and N-acetyl-(beta)-D-glucosaminidase. The zinc/vitamin C prevented renal disease caused by cisplatin by reducing active oxygen.

ADVANTAGE - Zinc (II) complex having a ligand vitamin such as vitamin C has reduced **toxicity**, good degree of stability and lipophilicity.

Dwg.0/4

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-L; B05-A03A; B10-B02C; B14-E11; B14-F07; B14-H01; B14-N17; B14-S04; B14-S08; D03-H01T2

L137 ANSWER 22 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-221666 [21] WPIDS
DOC. NO. CPI: C2003-056433
TITLE: Composition used in prophylaxis and/or treatment of symptoms caused or exacerbated by consumption of **toxic** compound such as ethanol comprises fructose and/or fructose containing oligosaccharide.
DERWENT CLASS: **B05**
INVENTOR(S): MCGREGOR, N R
PATENT ASSIGNEE(S): (PENA-N) PENAM INVESTMENTS PTY LTD; (MCGR-I) MCGREGOR N R
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003006073	A1	20030123	(200321)*	EN	12	A61K031-7004
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW						
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW						
EP 1411879	A1	20040428	(200429)	EN		A61K006-00
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR						
AU 2002318969	A1	20030129	(200452)			A61K031-7004
JP 2004534094	W	20041111	(200474)		36	A61K031-7004
US 2004248819	A1	20041209	(200481)			A61K031-70

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003006073	A1	WO 2002-AU890	20020705
EP 1411879	A1	EP 2002-748426	20020705
		WO 2002-AU890	20020705
AU 2002318969	A1	AU 2002-318969	20020705
JP 2004534094	W	WO 2002-AU890	20020705
		JP 2003-511878	20020705
US 2004248819	A1	WO 2002-AU890	20020705
		US 2004-483393	20040628

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1411879	A1 Based on	WO 2003006073
AU 2002318969	A1 Based on	WO 2003006073
JP 2004534094	W Based on	WO 2003006073

PRIORITY APPLN. INFO: AU 2001-6261 20010710
INT. PATENT CLASSIF.:
MAIN: A61K006-00; A61K031-70; A61K031-7004
SECONDARY: A61K031-197; A61K031-198; A61K031-381; A61K031-385; A61K031-4188; A61K031-455; A61K031-51; A61K031-525; A61K031-7016; A61K031-702; A61K031-715; A61P025-32; A61P039-02

BASIC ABSTRACT:

WO2003006073 A UPAB: 20030328

NOVELTY - Composition comprises fructose and/or a fructose-containing oligosaccharide.

ACTIVITY - Antialcoholic.

In a test, a male subject aged 42 years, who is a moderate drinker, took a teaspoon of a supplement before and after drinking. The supplement comprised (in mg per 100 g) corn maltodextrins (56609.1), fructose (21000), dextrose monohydrate (7000), L-**alanine** (3500), L-leucine (2500), L-isoleucine (2500), L-**valine** (2500), L-**glycine** (1000), L-**serine** (500), L-methionine (50), L-phenylalanine (50), L-**arginine** (50), L-tyrosine (50), L-histidine (50), L-aspartic acid (50), L-glutamic acid (50), L-asparagine (50), L-proline (50), L-lysine (50), L-**threonine** (50), L-cystine (50), sodium phosphate (1000), sodium bicarbonate (750), ascorbic acid (300), magnesium aspartate (150), nicotinamide (30), d- alpha tocopheryl acetate (20), ferrous fumarate (20), alpha -lipoic acid (10), calcium pantothenate (5), **riboflavin** (3), thiamine (2), beta -carotene (750 mcg), biotin (5 mcg), cholecalciferol (5 mcg), cyanocobalamin (5 mcg) and flavor. He stated that he was not as severely affected by alcohol while drinking and did not experience a hangover the following morning.

MECHANISM OF ACTION - None given in the source material.

USE - Used for prophylaxis and/or treatment of at least one symptoms caused or exacerbated by consumption of a **toxic** compound such as ethanol.

ADVANTAGE - The composition enhances the metabolism of ethanol and inhibits some of the biochemical changes associated with ethanol and its by-products.

Dwg.0/0

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B04-C02; B06-F03; B07-A02; B07-B03; B10-B02J; B10-C04D; B14-M01A

L137 ANSWER 23 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-597592 [56] WPIDS
DOC. NO. CPI: C2003-161827
TITLE: Alleviating or reducing **toxic**, nutritional, and metabolic disturbances associated with cancer and cancer **chemotherapy**, comprises administering composition comprising **riboflavin**, effector of urea cycle, and specified amino acids.
DERWENT CLASS: **B05**
INVENTOR(S): BURZYNSKI, S R
PATENT ASSIGNEE(S): (BURZ-I) BURZYNSKI S R
COUNTRY COUNT: 103
PATENT INFORMATION:

applicant's priority

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 2003105104	A1	20030605	(200356)*		9	A61K031-525
WO 2003045372	A1	20030605	(200356)	EN		A61K031-195
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW						
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW						
AU 2002352843	A1	20030610	(200419)			A61K031-195
EP 1450781	A1	20040901	(200457)	EN		A61K031-195
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR						
KR 2004065565	A	20040722	(200474)			A61K031-525
BR 2002014430	A	20041103	(200482)			A61K031-195

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003105104	A1	US 2001-995010	20011127
WO 2003045372	A1	WO 2002-US37354	20021121
AU 2002352843	A1	AU 2002-352843	20021121
EP 1450781	A1	EP 2002-789801	20021121
		WO 2002-US37354	20021121
KR 2004065565	A	KR 2004-707754	20040521
BR 2002014430	A	BR 2002-14430	20021121
		WO 2002-US3735	20021121

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2002352843	A1	Based on	WO 2003045372
EP 1450781	A1	Based on	WO 2003045372
BR 2002014430	A	Based on	WO 2003045372

PRIORITY APPLN. INFO: US 2001-995010 20011127
INT. PATENT CLASSIF.:
MAIN: A61K031-195; A61K031-525
SECONDARY: A23L001-305; A23L001-3055; A61K031-185; A61K031-198; A61K031-1988; A61K031-5255; A61P041-00; A61P041-000
INDEX: A61K031:198; A61K031:195; A61K031-525

BASIC ABSTRACT:

US2003105104 A UPAB: 20030903

NOVELTY - Alleviating or reducing the **toxic**, nutritional, and metabolic disturbances associated with cancer and cancer **chemotherapy** comprises administering to a patient a composition comprising **riboflavin**, effector of the urea cycle, and the amino acids **alanine**, **glycine**, **serine**, **taurine**, **threonine** and **valine**.

ACTIVITY - Cytostatic; Antiemetic; Endocrine-Gen.

MECHANISM OF ACTION - None given in the source material.

USE - For alleviating or reducing **toxic**, nutritional and metabolic disturbances, e.g. fatigue, and weakness associated with cancer and cancer **chemotherapy**. The method increases energy and has potential for decreasing the size of tumors within the patient. **Toxic effects** which may be suffered by patients undergoing cancer **chemotherapy** include pancytopenia, alopecia,

nausea and vomiting.
Dwg.0/0
FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-C; B07-D05; B10-A09B; B10-B02C; B14-E05; B14-H01; B14-J05; B14-R02

L137 ANSWER 24 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-003557 [01] WPIDS
DOC. NO. CPI: C2004-001624
TITLE: Foodstuffs for preventing obesity and reducing triglyceride level and body fat, contain organic compound, which forms complex with zinc and source of zinc.
DERWENT CLASS: **B05** D13
PATENT ASSIGNEE(S): (ARIT-I) ARITA J
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 2003319760	A	20031111	(200401)*		7	A23L001-304

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2003319760	A	JP 2003-7830	20030116

PRIORITY APPLN. INFO: JP 2002-100643 20020226
INT. PATENT CLASSIF.:
MAIN: A23L001-304
SECONDARY: A23L001-30; A23L001-305; A61K031-315; A61K033-30; A61K047-12; A61K047-18; A61K047-20; A61K047-22; A61K047-42; A61P003-04; A61P003-06; A61P003-10
BASIC ABSTRACT:
JP2003319760 A UPAB: 20040102
NOVELTY - Foodstuffs contain organic compound, which forms a complex with zinc and source of zinc.
ACTIVITY - Anorectic; Antilipemic; Antidiabetic; Cytostatic; Antiarteriosclerotic; Cardiovascular-Gen.; Antianginal; Hypotensive; Cardiant.
The bait agent was administered to KK-Ay mouse having symptoms of type 2 diabetes. The increase and decrease in body weight was evaluated and the results are shown in figure 1 and 2.
MECHANISM OF ACTION - None given.
USE - As health food for preventing obesity and reducing triglyceride level and body fat (claimed) and treating glucose tolerance disorder, diabetes, insulin resistance syndrome, polycystic ovary syndrome, hyper lipidemia, arteriosclerosis, cardiovascular disorder, hyperglycemia, angina, hypertension, cardiac failure and taste disorder.
ADVANTAGE - The foodstuff is stable and safe without producing any **side effects.**
DESCRIPTION OF DRAWING(S) - The figure shows a graph representing change in body weight after administered zinc sulfate and vitamin U.
(Drawing includes non-English language text).
Dwg.1/14
FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; GI; DCN
MANUAL CODES: CPI: B05-A03A; B06-D01; B06-D09; B06-D17; B07-A02A; B07-D03; B07-D04; B07-D09; B10-A07; B10-A22;

B10-B01B; B10-B02D; B10-B02E; B10-B02H; B10-B02J; B10-C02; B10-C03; B10-C04E; B14-E12; B14-F01; B14-F01D; B14-F02; B14-F02B; B14-F06; B14-F07; B14-F09; B14-H01; B14-S04; D03-H01T2

L137 ANSWER 25 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-847970 [79] WPIDS
DOC. NO. CPI: C2003-238964
TITLE: Infusion solution for intravenous administration, comprises saccharide, amino acid and electrolyte.
DERWENT CLASS: **B05 B07**
PATENT ASSIGNEE(S): (AJIN) AJINOMOTO KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 2003252757	A	20030910	(200379)*		11	A61K031-198

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2003252757	A	JP 2002-377386	20021226

PRIORITY APPLN. INFO: JP 2001-399468 20011228
INT. PATENT CLASSIF.:
MAIN: A61K031-198
SECONDARY: A61K009-08; A61K031-07; A61K031-122; A61K031-197; A61K031-355; A61K031-375; A61K031-401; A61K031-405; A61K031-4172; A61K031-4188; A61K031-4415; A61K031-455; A61K031-51; A61K031-525; A61K031-59; A61K031-7004; A61K031-714; A61K033-14; A61K033-30; A61K033-42; A61P003-02
BASIC ABSTRACT:
JP2003252757 A UPAB: 20031208
NOVELTY - Infusion solution for intravenous administration, comprises saccharide, amino acid and electrolyte. The infusion solution has total amount of nitrogen and nonprotein calorie amount ratio of 1:70-1:140 and has total energy of 450-625 kcal/l.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for infusion solution kit, which contains infusion solution for intravenous administration and exclusive catheter.
ACTIVITY - Anabolic.
MECHANISM OF ACTION - None given.
USE - For intravenous administration to improve nutritional balance.
ADVANTAGE - The infusion solution is safe with respect to patient at the time of moderate infestation and does not provide **side effects.** The infusion solution improves the nutritional balance.
Dwg.0/0
FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-L; B05-A01A; B05-A01B; B05-A03A; B05-B02A3; B05-C07; B06-D01; B06-D09; B07-D03; B07-D04C; B07-D09; B10-A04; B10-A07; B10-A17; B10-B01B; B10-B02C; B10-C04D; B12-M07; B14-E11

L137 ANSWER 26 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-141648 [19] WPIDS
DOC. NO. CPI: C2002-043846
TITLE: Zinc-oligopeptide useful in the treatment of diabetes

mellitus is prepared by proteolyzing a protein in water to obtain oligopeptides, which are further chelated with zinc ion.

DERWENT CLASS: **B02** D13
INVENTOR(S): JI, S K; JIH, S G
PATENT ASSIGNEE(S): (JISK-I) JI S K; (JIHS-I) JIH S G
COUNTRY COUNT: 30
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 1172373	A2	20020116	(200219)*	EN	8	C07K007-06
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR						
US 2002028769	A1	20020307	(200221)			A61K038-16
JP 2002034592	A	20020205	(200225)		5	C12P021-06
CN 1333372	A	20020130	(200231)			C12P021-02
KR 2002006114	A	20020119	(200251)			C07K001-12
US 6740502	B2	20040525	(200435)			C12P021-06
KR 421466	B	20040310	(200444)			C07K001-12
US 2004126410	A1	20040701	(200444)			A61K038-16

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1172373	A2	EP 2001-710010	20010306
US 2002028769	A1	US 2000-730542	20001207
JP 2002034592	A	JP 2000-379180	20001213
CN 1333372	A	CN 2001-103060	20010122
KR 2002006114	A	KR 2000-39595	20000711
US 6740502	B2	US 2000-730542	20001207
KR 421466	B	KR 2000-39595	20000711
US 2004126410	A1 Div ex	US 2000-730542	20001207
		US 2003-734172	20031215

FILING DETAILS:

PATENT NO	KIND	PATENT NO
KR 421466	B Previous Publ.	KR 2002006114

PRIORITY APPLN. INFO: KR 2000-39595 20000711
INT. PATENT CLASSIF.:
MAIN: A61K038-16; C07K001-12; C07K007-06; C12P021-02; C12P021-06
SECONDARY: A23J003-34; A23L001-30; A23L001-302; A23L001-304; A23L001-305; A23L002-38; A23L002-52; A61K031-505; A61K031-70; C07K014-415; C07K014-435
ADDITIONAL: A61K009-20; A61K009-48; A61K033-30; A61K047-42; A61P003-02

BASIC ABSTRACT:

EP 1172373 A UPAB: 20020820

NOVELTY - In the preparation of a zinc-oligopeptide a suspension of protein is proteolyzed in water to form a mixture of oligopeptide, followed by chelating zinc ion with the oligopeptide.

DETAILED DESCRIPTION - Preparation of a zinc-oligopeptide involves: proteolyzing a suspension of protein in water at a pH of 6.8 - 9 in the presence of a protease to give a mixture of oligopeptides; and chelating zinc ions with the oligopeptides to obtain the zinc-oligopeptide solution.

INDEPENDENT CLAIMS are also included for the following:

1) zinc-oligopeptide of formula (I);

Glu = glutamic acid;
Asp = aspartic acid;
Lys = lysine;
Arg = **arginine**;
Gly = **glycine**;
Ala = **alanine.**
;

2) a beverage comprising (I) in combination with at least one of a vitamin-C, vitamin-B1, **vitamin-B2**, fructose, alpha -amylase decomposed starch or magnesium stearate; and 3) a capsule or tablet prepared by dehydrating the beverage.

ACTIVITY - Antidiabetic; cytostatic; vulnerary; antiseborrheic; dermatological; antirheumatic; antiarthritic; immunostimulant.

MECHANISM OF ACTION - Insulin activator; mutant gene expression inhibitor; DNA polymerization promoter.

USE - In the preparation of a beverage, which is further used in the preparation of a capsule or a tablet (claimed). (I) is useful in the treatment of diabetes mellitus, in **anticancer** therapy, and in the regeneration of injured tissue e.g. to accelerate wound healing, prevention of prostate problems, hair loss and treatment of acne and rheumatoid arthritis.

ADVANTAGE - (I) has a molecular weight of 800 - 1,200 which, is smaller than the average molecular weight (24,000 - 28,000) of the membrane integral proteins of the small intestine, it can be readily absorbed by the body. (I) is water-soluble, thus its absorption by the body is not inhibited by the other compounds present in the digestive tract.

Dwg.0/2

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; GI; DCN
MANUAL CODES: CPI: B03-B; B03-C; B03-F; B04-C01B; B04-C02B2; B04-J03A; B04-L05B; B04-N01A; B04-N02A; B05-A01B; B05-A03A; B10-A07; B12-M11; B14-C06; B14-C09; B14-G01; B14-H01B; B14-L06; B14-N17; B14-N17B; B14-N17D; B14-S04; D03-H01G; D03-H01T2

L137 ANSWER 27 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-025903 [03] WPIDS
DOC. NO. NON-CPI: N2002-020018
DOC. NO. CPI: C2002-007233
TITLE: Detecting specific enzyme activities, useful e.g. for identifying enzyme inhibitors, based on enzymatic conversion of precursor to factor for which host cell is auxotrophic.
DERWENT CLASS: **B04** C06 D16 S03
INVENTOR(S): SILVA, C J
PATENT ASSIGNEE(S): (CUBI-N) CUBIST PHARM INC
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2001077366	A1	20011018	(200203)*	EN	51	C12Q001-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW						
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW						
AU 2001057002	A	20011023	(200213)			C12Q001-00

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001077366	A1	WO 2001-US11567	20010410
AU 2001057002	A	AU 2001-57002	20010410

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001057002	A	Based on	WO 2001077366

PRIORITY APPLN. INFO: US 2000-195911P 20000410
INT. PATENT CLASSIF.:
MAIN: C12Q001-00
SECONDARY: C12N015-00; C12N015-63; G01N033-573
BASIC ABSTRACT:
WO 200177366 A UPAB: 20020114
NOVELTY - Detecting a particular enzymatic activity (A) by treating host cells (B), genetically engineered to express at least one activity, with a precursor (C) of a factor (C') for which the cells are auxotrophic. (C) is converted only if the cells express (A), so if (B) survive when cultured under auxotrophic conditions this indicates expression of (A).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) similar method in which cells are treated with (C) before transformation to express (A);

(2) method for producing a protein (I) by introducing into a host cell a gene encoding (I) and a gene encoding an enzyme, then culturing cells under auxotrophic conditions in presence of (C) so that only cells that express both genes can grow;

(3) replicable vector containing a gene that expresses (A) able to convert (C) to (C'), thus allowing growth of transformed cells under auxotrophic conditions in presence of (C);

(4) host cell, auxotrophic for (C), that expresses (A);

(5) kit comprising, in separate vessels, auxotrophic cells and a replicable vector; and

(6) a method for detecting an enzyme inhibitor.

USE - The method is used for identifying new enzymes with specific activities or enzymatic pathways, e.g. in a gene expression library, selecting host cells, maintaining plasmids without use of antibiotics, expressing proteins and identifying specific enzyme inhibitors.

ADVANTAGE - The method produces only positive results, does not require chromophores or fluorophores, uses substrates that are more like their targets, and is accurate and efficient with 1 million or more assays being done in a single petri dish overnight. Since selection is based on auxotrophy and synthetic non-**toxic** compounds (not on antibiotics), (B) may be acceptable for release into the environment. (C) are generally more stable than antibiotics, so should be suitable for organisms that grow in extreme environments.

Dwg.0/2
FILE SEGMENT: CPI EPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B01-D02; B03-A; B03-B; B03-C; B03-G; B04-B01B; B04-B03A; B04-B03B; B04-C03; B04-D01; B04-E01; B04-E08; B04-F0100E; B04-L01; B04-L02; B04-N0400E; B05-B01P; B06-D01; B06-D02; B06-D05; B06-D09; B06-D18; B06-F03; B07-A01; B07-B03; B07-D03; B07-D04C; B07-D09; B10-A17; B10-A22; B10-B02; B10-B03B; B10-C02; B10-C04A; B10-C04E; B10-D02; B10-E04D; B10-J02; B11-C08E3; B12-K04; C01-D02; C03-A; C03-B; C03-C; C03-G; C04-B01B; C04-B03A;

C04-B03B; C04-C03; C04-D01; C04-E01; C04-E08;
C04-F0100E; C04-L01; C04-L02; C04-N0400E; C05-B01P;
C06-D01; C06-D02; C06-D05; C06-D09; C06-D18;
C06-F03; C07-A01; C07-B03; C07-D03; C07-D04C;
C07-D09; C10-A17; C10-A22; C10-B02; C10-B03B;
C10-C02; C10-C04A; C10-C04E; C10-D02; C10-J02;
C11-C08E3; C12-K04; D05-A02A; D05-A02B; D05-A02C;
D05-A02D; D05-A02E; D05-A02F; D05-H09; D05-H12E;
D05-H14
EPI: S03-E14H4

L137 ANSWER 28 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-602729 [68] WPIDS
DOC. NO. CPI: C2001-178562
TITLE: Production of standardized drinks and potable water for health profiles of nutritional needs, involves dissolving specific additives into the drinks or water.
DERWENT CLASS: **B05** D13 D15 D16
INVENTOR(S): COSTA, F
PATENT ASSIGNEE(S): (DCOS-I) MOREIRA DA COSTA F J; (COST-I) COSTA F
COUNTRY COUNT: 35
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2001068534	A1	20010920	(200168)*	EN	36	C02F001-68
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL SE TR						
W: AU BR CA CN IL IN IS JP KR MX NO NZ SG US ZA						
PT 102430	A	20010927	(200168)			C02F001-68
AU 2001041301	A	20010924	(200208)			C02F001-68
EP 1307408	A1	20030507	(200332)	EN		C02F001-68
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL SE TR						
US 2004013784	A1	20040122	(200407)			C12C001-00

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001068534	A1	WO 2001-PT3	20010315
PT 102430	A	PT 2000-102430	20000316
AU 2001041301	A	AU 2001-41301	20010315
EP 1307408	A1	EP 2001-912612	20010315
		WO 2001-PT3	20010315
US 2004013784	A1	WO 2001-PT3	20010315
		US 2003-239621	20030127

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001041301	A Based on	WO 2001068534
EP 1307408	A1 Based on	WO 2001068534

PRIORITY APPLN. INFO: PT 2000-102430 20000316
INT. PATENT CLASSIF.:
MAIN: C02F001-68; C12C001-00
SECONDARY: A23L001-29
BASIC ABSTRACT:
WO 200168534 A UPAB: 20011121
NOVELTY - Production of standardized drinks and potable water comprises dissolving specifically produced additives, in the form of solids (tablets or gelatinous capsules), liquids, gases, and/or energy, into the drinks or

water (distilled or demineralized). The additives are elements and chemical compounds needed for daily human consumption, e.g. vitamins, amino acid, proteins, minerals.

USE - The invention produces standardized drinks and potable water for health profiles of nutritional needs. The drinks can be milk, drinkable yogurt, coffee, tea, chocolate, shake, juice, soda, sparkling canned drink, beer, wine, liquor, brandy, whiskey, spirituous drink, white drink, and other alcoholic and non-alcoholic drink. The water is from natural resources, e.g. water springs, fountains, rivers, or from artificial resources, e.g. public water networks, holes, and bottled waters.

ADVANTAGE - The invention provides high quality drinks and potable water regionally standardized for specific and/or pre-defined health profiles of the consumers. The use of the additives in the production of standardized drinks and potable water satisfies the biological nutritional needs. Some illnesses, caused by many factors including lack of nutrients, and conditions that the invention will satisfy are uric acid - gout; alcoholism; allergies; anemia; anorexia; arteriosclerosis; arthritis; renal calculus in kidneys and vesicle; cancer; growth; high cholesterol; depression; dehydration; malnutrition; hormone clutter; sports - athletes; diabetes mellitus; genetic disorders; psychological illnesses; psychiatric illnesses; bone diseases; ear pain; skin diseases; alimentary and digestive system illnesses; cardiovascular system illnesses; sanguineous circulatory system illnesses; hepatic system illnesses; immunology system illnesses; lymphatic system illnesses; nervous system illnesses; ophthalmologic system illnesses; respiratory system illnesses; reproductive system illnesses; urinary and renal system illnesses; fatigue; infertility; human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS); leukemia; maternity; menopause; obesity; corporal odor; osteoporosis; high arterial pressure; arterial pressure decrease; menstrual problems; prostate; puberty; kidneys; rheumatism; **toxic**-dependence - drugs; ulcer; oldness; vesicle.

Dwg.0/0

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-L; B04-A10; B04-L01; B04-N04; B05-A01A; B05-A01B; B05-A03; B05-B02A3; B05-B02C; B05-C07; B06-H; B07-H; B10-A06; B10-A22; B10-B02A; B10-B02B; B10-C04D; B14-E11; D03-B08; D03-D01; D03-D02; D03-H01F; D03-H01G; D03-H01H; D03-H01T2; D04-A; D05-E

L137 ANSWER 29 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-328414 [34] WPIDS
DOC. NO. CPI: C2001-100693
TITLE: Treating neurobehavioral disorders comprises administering a composition comprising amino acid(s) and e.g. vitamins, neurotransmitter precursors, minerals, corticosteroids, enzyme inhibitors and/or immunological enhancers.
DERWENT CLASS: **B05**
INVENTOR(S): BECHTHOLD, J C; LILLY, T D
PATENT ASSIGNEE(S): (BECH-I) BECHTHOLD J C; (LILL-I) LILLY T D
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2001026642	A2	20010419	(200134)*	EN	91	A61K031-00

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DZ

EE ES FI GB GD GE GH GM HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI
SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000080038 A 20010423 (200147) A61K031-00

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001026642	A2	WO 2000-US27894	20001006
AU 2000080038	A	AU 2000-80038	20001006

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000080038	A	Based on	WO 2001026642

PRIORITY APPLN. INFO: US 2000-201043P 20000501; US
1999-158604P 19991008; US
1999-164049P 19991108; US
1999-166068P 19991117
INT. PATENT CLASSIF.:
MAIN: A61K031-00
BASIC ABSTRACT:
WO 200126642 A UPAB: 20010620
NOVELTY - Treating a neurobehavioral disorder comprises administering intravenously a composition comprising amino acid(s), neurotransmitter precursors, vitamins, inhibitors of neurotransmitter degradation and/or immune function enhancers.

DETAILED DESCRIPTION - Treating a neurobehavioral disorder comprises administering intravenously a composition comprising amino acid(s), neurotransmitter precursors, vitamins, inhibitors of neurotransmitter degradation and/or immune function enhancers.

INDEPENDENT CLAIMS are included for:

(1) a sterile composition (I) for treating neurobehavioral disorders comprising:

(a) at least one amino acid;

(b) vitamin C; and

(c) an electrolyte solution.

(2) a sterile composition (II) for treating neurobehavioral disorders comprising:

(a) at least one amino acid;

(b) a corticosteroid; and

(c) an electrolyte solution;

(3) a sterile composition (III) for treating neurobehavioral disorders comprising:

(a) vitamin C;

(b) a corticosteroid; and

(c) an electrolyte solution;

(4) a sterile composition (IV) for treating neurobehavioral disorders comprising:

(a) at least one amino acid;

(b) an immune potentiating amount of gamma-globulin; and

(c) an electrolyte solution;

(5) a sterile composition (V) for treating neurobehavioral disorders comprising:

(a) at least one amino acid;

(b) an inhibitor of opioid peptide degradation; and

(c) an electrolyte solution;

(6) an oral composition (VI) for treating neurobehavioral disorders comprising:

(a) at least one amino acid; and

(b) a substance selected from Ginko Biloba, methylsulfonylmethane, phosphatidylserine, phosphatidylcholine, alpha lipoic acid, red ginseng root, L-aspartic acid, ephedrine, pancreatic enzymes, caffeine, theobromine, Hypericum perforatum extract, S-adenosyl methionine, dihydroxyacetate, DMAE, grape seed extract, betaine, prickly pear cactus extract, Gymnea sylvestre extract, nicotinamide adenine dinucleotide/hydrogen, cholecystokinin, Cyclo (His-Pro), corticotropin-releasing hormone, neuropeptide Y, galanin, monolaurin or fructo-oligosaccharides.

(7) a method for treating a neurobehavioral disorder comprising administering intravenously a sterile and isotonic composition comprising: (a) vitamin C;

(b) a corticosteroid; and

(c) water;

(8) a method for treating a neurobehavioral disorder comprising:

(i) evaluating a neurobiological characteristic of the disorder; and

(ii) injecting the patient with an intravenous composition to treat the disorder; and

(9) a composition (VII) for treating a neurobehavioral disorder comprising:

(i) an inhibitor of opioid degradation; and

(ii) a substance selected from group (A) which comprises thymus extract, L-taurine, alpha-keto glutarate, lidocaine, L-glutathione, pyridoxal-5-phosphate, sodium ascorbate, oxytocin, L-glycine, L-leucine, gamma globulin, vitamin B complex, magnesium taurate, citric acid, chromium polynicotinate, chromium nicotinate, chromium picolynate, zinc chelate, calcium chelate, vitamin B-12, vitamin B-5, vitamin B-6, vitamin B-1, folic acid, L-taurine and balanced amino acid solution with electrolytes.

ACTIVITY - Anti-alcoholic, anti-depressant; nootropic; antismoking; antiaddictive; anxiolytic; tranquilizer; anorectic; neuroleptic; anticonvulsant; neuroprotective.

A 38 year old male suffering from sleep disorders, obsessive-compulsive disorder, anger and rage disorder, depression, drug and alcohol addiction, attention deficit hyperactivity disorder, neurally mediated hypotension, chronic fatigue syndrome, dyslexia and a history of debilitating brain disorder for whom conventional therapies had minimal effect was given a number of infusion treatments culminating in an infusion comprising saline (500 ml), sodium ascorbate (25 mg), molybdenum (250 mg), magnesium (600 mg), vitamin E (500 IU), vitamin B1 + B complex (1 cc), manganese (2 cc), zinc (1 cc), selenium (2 cc), chromium (2 cc), calcium gluconate (7 cc), taurine (2 cc), copper solution (2 cc), adrenal cortical extract (5 cc) and vitamin A (1000000 IU). The subject noted a reduction in craving, fluid retention was improved and blood pressure stabilized. The subject also experienced an increased sense of calm and increased motivation, mood and energy.

MECHANISM OF ACTION - The components of the compositions are e.g. enzyme inhibitors (for inhibiting neurotransmitter degradation or opiate degradation), neurotransmitter precursors, insulin potentiators, dopamine receptor agonists, opiate receptor antagonists and ammonia scavengers.

USE - The compositions are useful for reducing symptoms associated with withdrawal, improving symptoms of drug and alcohol overuse and reducing or preventing cravings for addictive substances. The compositions and methods permit the brain to function more normally by supporting or increasing the function of deficient neurochemical pathways and can eliminate or decrease symptoms of withdrawal, craving or compulsion associated with addiction and other central neurobiological disorders. The methods are useful for treating neurobehavioral disorders and for diagnosing and/or evaluating underlying neurobehavioral disorders. The treatments are also useful for disorders involving carbohydrate addiction, weight gain and nicotine addiction. Neurobehaviors treatable by these

methods and compositions include e.g. obesity, smoking, Tourette's Syndrome, ADHD (attention deficit hyperactivity disorders), ADD (attention deficit disorders), Schizoid/Avoidant Behavior, aggression, posttraumatic stress syndrome, alcoholism, drug addiction, obsessive compulsive disorders, learning disorders, reading problems, gambling, manic symptoms, phobias, panic attacks, oppositional defiant behavior, conduct disorder, sexual behavior disorders, schizoid disorders, somatization disorders, depression, sleep disorders, general anxiety disorders, stuttering, tic disorders, anger and violent behavior disorders as well as Huntington's chorea, amyotropic lateral sclerosis, environmental sensitivity, chemical injury syndrome and chronic fatigue syndrome.

ADVANTAGE - The compositions can minimize adverse effects of addiction and other neurobehavioral disorders in patients recovering from these disorders. The compositions can eliminate or decrease symptoms of withdrawal, craving or compulsion associated with addiction and other central neurobiological disorders and these effects can result in longer lasting improvements in symptoms, thus reducing the risk of relapse and also making it more likely that the patient will complete their course of treatment. The compositions are less expensive in comparison to the current costs of residential treatment for drug and alcohol addiction and costs incurred due to repeat therapy can be reduced.

Dwg.0/0

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-B; B03-D; B03-F; B03-H; B03-L; B04-B04G; B04-C01B; B05-A01B; B05-A03A; B05-A03B; B06-D01; B06-D09; B07-D04C; B10-B02; B10-B02B; B10-B02E; B10-C04E; B10-G02; B14-E12; B14-J01; B14-J01A1; B14-J01A4; B14-J01B2; B14-J01B3; B14-J01B4; B14-J07; B14-M01; B14-M01B

L137 ANSWER 30 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-084181 [12] WPIDS
DOC. NO. CPI: C2002-025785
TITLE: Micronutrient combination product based on vitamins, folic acid, magnesium, **arginine**, coenzyme Q10, carotenoids and omega fatty acids, useful as nutritional supplement in drug treatment and smoking.
DERWENT CLASS: **B05**
PATENT ASSIGNEE(S): (ORTH-N) ORTHOMOL PHARM VERTRIEBS GMBH
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 20116346	U1	20011220	(200212)*		20	A61K031-505

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 20116346	U1	DE 2001-20116346	20011005

PRIORITY APPLN. INFO: DE 2001-20116346 20011005
INT. PATENT CLASSIF.:
MAIN: A61K031-505
SECONDARY: A61K031-355
BASIC ABSTRACT:
DE 20116346 U UPAB: 20020221
NOVELTY - A micronutrient combination product comprises vitamin C, vitamin E, vitamin B6, vitamin B12, folic acid, magnesium, **arginine**,

coenzyme Q10, carotenoid and omega fatty acids, each in a daily dosage range.

DETAILED DESCRIPTION - The micronutrient combination preparation comprises, on a daily dose basis:

(a) vitamin C (350-750 mg, preferably 450-650 mg, especially 500-600 mg, particularly 520-560 mg);

(b) vitamin E (100-200 mg, preferably 120-180 mg, especially 130-270 mg, particularly 140-160 mg);

(c) vitamin B6 (3-25 mg, preferably 4-20 mg, especially 5-18 mg, particularly 5-15 mg);

(d) vitamin B12 (6-12 mg, preferably 7-11 mg, especially 8-9 mg);

(e) folic acid (400-1,000 micro g, preferably 450-900 micro g, especially 500-850 micro g, particularly 600-800 micro g);

(f) magnesium (150-300 mg, preferably 160-250 mg, especially 170-220 mg, particularly 180-200 mg);

(g) **arginine** (100-400 mg, preferably 110-300 mg, especially 120-250 mg, particularly 125-200 mg);

(h) coenzyme Q10 (10-20 mg, preferably 11-19 mg, especially 12-18 mg, particularly 15-16 mg);

(i) carotenoid (2-10 mg, preferably 3-9 mg, especially 4-8 mg, particularly 5-6 mg); and

(j) omega-3-fatty acids (400-1000 mg, preferably 420-900 mg, especially 450-800 mg, particularly 500-600 mg).

ACTIVITY - None given in the source material.

MECHANISM OF ACTION - None given in the source material.

USE - The product is used to prevent nutritional deficiency disorders, caused especially by drug treatment of human diseases, especially cardiac diseases, or by smoking.

ADVANTAGE - The product has no harmful **side effects** and can be safely administered together with drugs where it reduces their **side effects.**

Dwg.0/0

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-A; B03-B; B03-C; B03-D; B03-E; B03-F; B03-H; B03-K; B04-L02; B05-A01B; B05-A03; B05-B02C; B06-D09; B07-D04; B10-B02D; B10-B02J; B10-C04D; B10-C04E; B14-E11

L137 ANSWER 31 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1998-315266 [28] WPIDS
DOC. NO. CPI: C1998-097296
TITLE: Integumentary cortical function enhancer and infection preventing composition - contains extract of wild Tiliaceae annual herb, natural enzyme liquor, pure water, saccharide, licensed food additive, cosmetic raw material and pharmaceutical.
DERWENT CLASS: A96 **B04**
PATENT ASSIGNEE(S): (SAKA-I) SAKATA S
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 09176029	A	19970708	(199828)*		3	A61K035-78

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 09176029	A	JP 1995-354770	19951226

PRIORITY APPLN. INFO: JP 1995-354770 19951226
INT. PATENT CLASSIF.:
MAIN: A61K035-78
SECONDARY: A61K031-70; A61K031-715; A61K038-43
BASIC ABSTRACT:
JP 09176029 A UPAB: 19980715
Integumentary cortical function enhancer and infection preventing composition contains extract of wild Tiliaceae annual herb, naturally occurring enzyme liquor, pure water, saccharide, licensed food additive, standard cosmetic raw material and licensed pharmaceutical.

The extract of wild Tiliaceae annual herb preferably contains at least 1 of protein, lipid, ash, carbohydrate, phosphorus, iron, calcium, potassium, carotene, vitamin-A, thiamine, **riboflavin**, ascorbic acid and water. The naturally occurring enzyme liquor includes at at least 1 of amino acid e.g. **arginine**, lysine, histidine, phenylalanine, tyrosine, leucine, isoleucine, methionine, **valine**, **alanine**, **glycine**, proline, glutamine, **serine**, **threonine**, aspartic acid, tryptophane, cystine, vitamin-A, -B and -E, and pure water.

ADVANTAGE - The composition is a safe alternative agent to a steroidal composition and has no **side effects.**

Dwg.0/0
FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: A12-V01; B04-A08C2; B04-A10; B04-C02; B04-D01; B04-L01; B14-D01D; B14-E11; B14-R01

L137 ANSWER 32 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1992-433373 [52] WPIDS
DOC. NO. CPI: C1992-192375
TITLE: Nutrient compsn. for treating immune disorders e.g. AIDS - including (non)oxidised gamma-L-glutamyl-L-cysteinyl **glycine**, gamma-L-glutamyl-L-cysteine etc. used with antiviral drugs.
DERWENT CLASS: **B04 B05**
INVENTOR(S): MAHNAZ KHALED, F; MAHNAZ, K F; KHALED, F M
PATENT ASSIGNEE(S): (LIFE-N) LIFE SCI TECHNOLOGIES INC
COUNTRY COUNT: 33
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9221368	A1	19921210	(199252)*	EN	20	A61K037-02
RW: AT BE CH DE DK ES FR GB GR IT LU MC NL SE						
W: AU BB BG BR CA FI HU JP KP KR LK MG MW NO PL RO RU SD US						
AU 9221879	A	19930108	(199315)			A61K037-02
EP 604433	A1	19940706	(199426)	EN		A61K037-02
R: DE FR GB						
EP 604433	A4	19941012	(199534)			A61K037-02
US 5977073	A	19991102	(199953)			A61K038-00
EP 604433	B1	20000315	(200018)	EN		A61K038-00
R: DE FR GB						
DE 69230796	E	20000420	(200026)			A61K038-00

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9221368	A1	WO 1992-US4653	19920604
AU 9221879	A	AU 1992-21879	19920604
		WO 1992-US4653	19920604

EP 604433	A1	EP 1992-913917	19920604
		WO 1992-US4653	19920604
EP 604433	A4	EP 1992-913917	
US 5977073	A	US 1991-711530	19910606
EP 604433	B1	EP 1992-913917	19920604
		WO 1992-US4653	19920604
DE 69230796	E	DE 1992-630796	19920604
		EP 1992-913917	19920604
		WO 1992-US4653	19920604

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9221879	A	Based on	WO 9221368
EP 604433	A1	Based on	WO 9221368
EP 604433	B1	Based on	WO 9221368
DE 69230796	E	Based on	EP 604433
		Based on	WO 9221368

PRIORITY APPLN. INFO: US 1991-711530 19910606
REFERENCE PATENTS: 2.Jnl.Ref; US 4466978; US 4927808; WO 9102535
INT. PATENT CLASSIF.:
MAIN: A61K037-02; A61K038-00
SECONDARY: C07K005-06; C07K005-08
BASIC ABSTRACT:

WO 9221368 A UPAB: 19931118
Compsn. for treating immune disorders in mammals comprises (1) 50-3000 mg. of a cpd. (I) or its salt or ester, which directly enhances the level of gamma-L-glutamyl-L- cysteinylglycine (Ia), (2) 50-3000 mg. L-glutamine, (3) 50-1000 mg. Vitamin C, (4) 50-500 mg. Vitamin E, (5) 10-100 mg. beta-carotene, and(6) 1-25 mg. Vitamin B6, all components being in purified form.

(I) is specifically (Ia), gamma-L-glutamyl-L-cysteine, N-acetyl-L-cysteine or N-acetyl-L-cysteinyl-**glycine.**

The compsn. also contains at least one (pref. all) of 50-5000 mg. L-**arginine**, 5-50 micro-g. Cr, 50-150 micro-g. folic acid, 1-5 mg. Fe, 10-50 mg. Mg, 5-50 mg. pantothenic acid, 1-2.5 mg. **riboflavin**, 5-50 mg. thiamine, 0.5-10 mg. Vitamin A, 10-1000 micro-g. Se, 0.5-5 micro-g. Vitamin B12 and 1-50 mg. Zn.

USE/ADVANTAGE - The compsn. improves immune competence of the patient. It is especially used where immune deficiency is caused by a virus or bacterium and the patient is being treated with an appropriate anti-organism agent which has some **toxicity** for the host. In such cases the compsn. reduces **toxicity** and accelerates replication of the pathogen, making it more susceptible to the agent.
Dwg.0/0

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-L; B05-A01B; B05-A03; B05-B02C; B06-D09; B10-A17; B10-B02D; B10-B02J; B10-C04D; B12-A01; B12-A06; B12-D02A

L137 ANSWER 33 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1990-304797 [40] WPIDS
DOC. NO. CPI: C1990-131625
TITLE: Cellular growth medium - which allows maintenance and propagation of cells in normal atmospheric carbon di oxide.
DERWENT CLASS: **B04** D16
INVENTOR(S): BOYD, M R; MONKS, A P; SCUDIERO, D A; SKEHAN, P J; VISTICA, D T; MONKS, P A; VISTICA, A

PATENT ASSIGNEE(S): (USDC) US DEPT OF COMMERCE; (USSH) NAT INST OF HEALTH;
(USDC) US SEC OF COMMERCE
COUNTRY COUNT: 18
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 467939	A0	19900904	(199040)*			
WO 9110726	A	19910725	(199132)			
RW: AT BE CH DE DK ES FR GB GR IT LU NL SE						
W: AU CA JP						
AU 9173001	A	19910805	(199145)			
EP 512066	A1	19921111	(199246)	EN	41	C12N005-00
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE						
JP 05502379	W	19930428	(199322)		14	C12N005-08
AU 653927	B	19941020	(199443)			C12N005-02
EP 512066	A4	19930428	(199526)			
JP 07089954	B2	19951004	(199544)		23	C12Q001-02
EP 512066	B1	19961113	(199650)	EN	38	C12N005-00
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE						
DE 69123140	E	19961219	(199705)			C12N005-00
CA 2074363	C	20041109	(200474)	EN		C12N005-02

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 467939	A0	US 1990-213786	19900122
EP 512066	A1	EP 1991-904443	19910122
		WO 1991-US451	19910122
JP 05502379	W	JP 1991-504839	19910122
		WO 1991-US451	19910122
AU 653927	B	AU 1991-73001	19910122
EP 512066	A4	EP 1991-904443	
JP 07089954	B2	JP 1991-504839	19910122
		WO 1991-US451	19910122
EP 512066	B1	EP 1991-904443	19910122
		WO 1991-US451	19910122
DE 69123140	E	DE 1991-623140	19910122
		EP 1991-904443	19910122
		WO 1991-US451	19910122
CA 2074363	C	CA 1991-2074363	19910122
		WO 1991-US451	19910122

FILING DETAILS:

PATENT NO	KIND		PATENT NO
EP 512066	A1	Based on	WO 9110726
JP 05502379	W	Based on	WO 9110726
AU 653927	B	Previous Publ.	AU 9173001
		Based on	WO 9110726
JP 07089954	B2	Based on	JP 05502379
		Based on	WO 9110726
EP 512066	B1	Based on	WO 9110726
DE 69123140	E	Based on	EP 512066
		Based on	WO 9110726
CA 2074363	C	Based on	WO 9110726

PRIORITY APPLN. INFO: US 1990-213786 19900122; US
1990-467939 19900122
REFERENCE PATENTS: 2.Jnl.Ref; US 3883393; US 4411990; US 4533637; 3.Jnl.Ref;

9.Jnl.Ref
INT. PATENT CLASSIF.: C12N000-01; C12N005-02; C12Q001-02
MAIN: C12N005-00; C12N005-02; C12N005-08; C12Q001-02
SECONDARY: C12N000-01; C12Q001-04
ADDITIONAL: C12N005-06
INDEX: C12Q001-02, C12R001:91
BASIC ABSTRACT:
US N7467939 N UPAB: 20011211
Disclosed is a growth medium which allows maintenance and propagation of cells in normal atmospheric CO2, that is without requiring an exogenous, regulated supply of enriched CO2 for buffering.

The medium, termed PDRG basal growth medium, comprises 78 mg/l L-**alanine**, 265 mg/l L-**arginine**, 88 mg/l L-asparagine, 5 mg/l L-aspartic acid, 52 mg/l L-cysteine, 24 mg/l L-cysteine, 2HCl, 5 mg/l L-glutamic acid, 343 mg/l L-glutamine, 79 mg/l **glycine**, 141 mg/l L-histidine, 78 mg/l L-isoleucine, etc. USE/ADVANTAGE - The medium has good pH stability and buffering capacity in atmospheric CO2. It exhibits the capability for large scale growth of a broad range of human tumour cell lines for in vitro **anticancer** drug screening. @(33pp Dwg.No.0/7)
FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B03-B; B03-C; B03-E; B04-A06; B05-A01A; B05-A01B; B05-A03A; B05-B02A3; B06-D09; B06-F03; B07-B03; B07-D04C; B07-D12; B10-A07; B10-A22; B10-B01B; B10-B02C; B10-C04E; B10-E04C; B10-E04D; D05-H01

FILE 'HOME' ENTERED AT 12:31:56 ON 07 JAN 2005

=>